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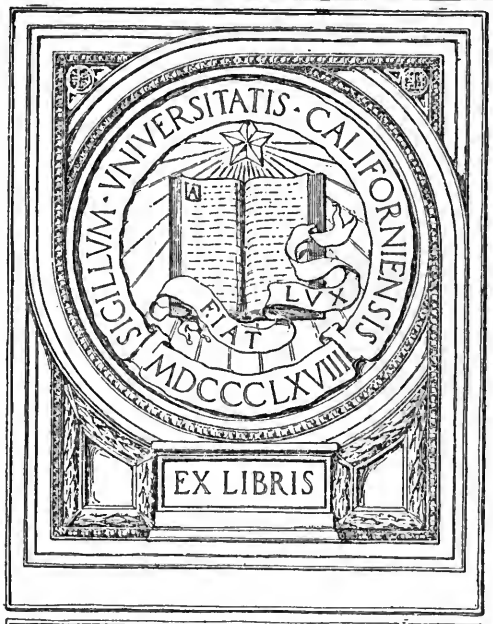
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A D M I N I S T R A T I O N

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F I E L D O R D N A N C E D E P O T S.

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1. THE ORDNANCE DEPARTMENT.

1. The Chief of Ordnance of the Army is charged with the duty of PROCURING, by purchase or manufacture, and DISTRIBUTING the necessary ordnance and ordnance stores for the Army and the National Guard, (par. 1511, Army Regulations, 1913). Ordnance and ordnance stores include cannon and artillery vehicles, and equipments; apparatus and machines for the service and maneuver of artillery; small arms, ammunition, and accoutrements; horse equipments and harness for Field Artillery, and horse equipments for Cavalry and other mounted men; tools, machinery, and materials for the ordnance service; and all property of whatever nature (including specially equipped motor trucks, motorcycles, tractos, and railroad cars) supplied to the Military Establishment by the Ordnance Department (par. 1512, Army Regulations, 1913).

2. The personnel of the Ordnance Department comprises commissioned officers, enlisted men, and civilian employees.

3. The commissioned personnel includes officers of the Ordnance Department, United States Army; Ordnance Reserve Corps and officers of the Ordnance Department, National Army. The first class comprises Regular Army officers who make the study and practice of ordnance engineering their life profession; the second class comprises officers called into active service with the Ordnance Department by selection from the inactive list of the Ordnance Officers' Reserve Corps and comprises executives, scientists, engineers (mechanical, electrical, chemical, industrial, etc.), chemists, metal-lurgists, etc., ordinarily engaged in civil pursuits, who have engaged to give their services when needed by the Government. The last class comprises officers, who since the creation of the National Army have been commissioned direct into that army or promoted into that army.

4. The enlisted personnel includes the enlisted men of the Ordnance Department, Regular Army; Ordnance Department, Regular Army Reserve; and Enlisted Ordnance Corps, National Army. The first class comprises Regular Army enlisted men who make service in the Ordnance Department their life work; the second class comprises Regular Army enlisted men who have been furloughed to the Reserve at the expiration of their term of service with the colors; and the last class comprises men skilled in various trades and ordinarily engaged in

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civil pursuits, who have enlisted in or been transferred to the Ordnance Department since the outbreak of the war.

5. The civilian personnel includes all others not either officers or enlisted men. (For matters governing civilian employees, see Ordnance Pamphlet No. 1694, Regulations for the Administration of the Civil Service in the Ordnance Department, United States Army at Large).

6. The service of ordnance supply in the field require: Officers for administrative duties, as division ordnance officers; and officers along the lines of communication, commanding officers of ordnance depots and assistants; and enlisted men for the clerical work involved and as artisans and laborers for the necessary manual work. No civilian personnel will hereafter be provided for the ordnance field service.

2. DISTRIBUTING FUNCTION OF THE ORDNANCE DEPARTMENT.

7. Officers, and enlisted men, designated for field duty are interested in the purchase and manufacture of ordnance stores, and they should lose no opportunity to become familiar with these phases of ordnance work. However, it is with the DISTRIBUTIVE function that they have primarily to deal. Hence they are most interested in all phases of this function, including supply, maintenance, inspection, salvage, etc. It is with this function that these notes will deal.

8. The distributing function is in intimate contact with the line of the Army and must adapt itself readily to all the changing conditions encountered by the line ranging from routine garrison duty to the most arduous field service. The regulations governing the distributing function contemplate the various conditions attending supply problems, and are so framed as to adapt themselves accordingly. A brief statement of all of the varying conditions attending the supply of ordnance, the regulations published to meet each condition, and the reasons behind the regulations is of interest and may be of actual value at a concentration camp administered partially or entirely under the provisions of peace-time regulations.

A. Distribution in Time of Peace.

9.. In time of peace the various phases of the distributing function are largely assumed by the line of the Army, and "ordnance and ordnance stores are issued

from the various arsenals and depots to the extent authorized by existing orders" (par. 1513, Army Regulations, 1914). The orders referred to represent the administrative mechanism, which experience has indicated to be necessary to most nearly meet the peace needs of the Army within the limits of funds appropriated for the purpose. (Reference pars. 1 to 7, inclusive, G. O. 58, War Department, 1916). These orders refer constantly to "prescribed allowances," and at first glance will probably appear unusally restrictive as regards the exercise of judgment and initiative by ordnance supply officers. However, as in most well-established systems, there is ample justification for these restrictions in time of peace and many of them are susceptible of application in time of War. For instance, the War Department prescribes in great detail the ordnance equipment of organizations and individuals. The prescribed (or unit) equipment is in effect the best compromise between fighting power (equipment) and mobility (ease of transportation) and the whole system of logistics*depends upon a strict adherence to this policy. The superior commander thinks of his individuals and organizations in terms of mobilty and power. Overequipment without the knowledge of the superior commander reduces the mobility which he confidently expects and introduces serious errors in his calculations. Underequipment without his knowledge reduces the fighting power which he assumes in making his dispositions and likewise introduces sudden and disconcerting errors into his calculations. The basic principles underlying the adoption of unit equipments apply in war as well as in peace. Departures from the standard ---directed or authorized by the superior commander---are automatically taken into account by him in making his plans. All other departures, except in minor details, should be brought to his attention promptly on account of their possible effect on his dispositions.

10. On the other hand, these are peace-time policies which have but a limited application in time of war. For instance, consider the system which extablishes allowances, such as ammunition for target practice, cleaning and preserving material, repair parts for personal equipment, for horse equipments, for small arms, etc. These allowances are a necessity in time of peace. Funds are appropriated by Congress for certain specific purposes, such as target practice, maintenance of equipment, etc.; The Army consists of individuals and organizations which must be trained to certain degrees of proficiency in their special duties.

*The tactical movement of an army from place to place.

The target practice allowances represent the distribution of funds appropriated for that purpose decided upon after considering the strength of the Army, the cost of the ammunition, the total funds available, and all other factors bearing upon the subject. Similarly the supply and allowance tables of preservatives, spare and repair parts, etc., represent the best distribution of the funds appropriated for maintenance purposes, taking into consideration the grand total of equipment to be maintained, accumulation of war reserves, etc.

11. The allowance tables constitute a normal condition of affairs within which routine business is authorized. Issues of articles in excess of prescribed allowances, or of articles not listed in allowance tables, must, naturally, be referred to the authority which establishes the normal allowance, in order that necessary changes in the normal allowance may be made, if considered desirable after mature consideration and if available funds permit.

B. DISTRIBUTION IN TIME OF WAR.

12. When troops are in the field in time of war, the conditions of supply are vastly different from peace conditions. The regulations take into account these changed conditions by providing for the issue "of such articles of ordnance property as may be needed" on the order of any general or field officer (par. 1514, Army Regulations, 1913), subject, however, to the provisions of paragraph 8, General Orders 58, War Department, 1916, which prescribe a normal channel for requisitions through immediate commanders to the headquarters of the Army, Army corps, division, or expedition concerned. This course is obviously desirable as keeping superior authority informed of the state of supply of the command, and securing the assignment of proper transportation for ordnance supplies.

13. During active operations, however, it is provided that requisitions be submitted orally directly on the ordnance officer whose facilities for making prompt issues are the greatest, without requiring them to pass through intermediate commanders. (See O.P.R.,1917, pars. 89 and 90.)

It will therefore be seen that the regulations adapt themselves to the conditions attending the particular supply problem at hand. In time of peace the exercise of strict economy is emphasized, and the administrative mechanism to secure it is provided. As troops take the field economy is still important, but its place as a determining factor is taken by the question of securing transportation for ordnance

supplies in competition with forage, tentage, rations, clothing, etc., and the regulations have been framed with this condition in mind. When the troops engage in active operations, the supply of ordnance, particularly of ammunition, is of supreme importance and all other considerations become secondary. The regulations then provide the simplest and most expeditious procedure possible.

14. In time of war it is exceedingly important to relieve line troops of all duties which might interfere with their efficiency as fighting organizations. Under the present organization of the Army, the combatant forces require and expect the Ordnance Department to properly equip their organizations with arms, ammunition, personal and horse equipment, etc., and also to maintain all of this equipment in serviceable and sufficient condition. In order to meet this requirement the Ordnance Department sends into the field the personnel, stores, etc., comprising an ordnance depot, at a suitable point or points, under authority of paragraph 1515, Army Regulations, 1913. The ordnance depot becomes the general clearing house of what the combatant forces expept from the Ordnance Department, and what the Ordnance Department can accomplish toward this end, utilizing the facilities of the other staff and supply departments in addition to its own. The Ordnance Department expects its representative, the Ordnance depot, to accomplish its function economically and efficiently by utilizing all its facilities to the utmost.

3. THE ORDNANCE DEPOT.

15. The ordnance depot is in effect a small arsenal except as to manufacturing activities. It operates in the United States under the control of the Commanding General of the territorial department in which it is located. (Par. 1515, Army Regulations, 1913, and G. O. 137 W. D. 1917). In the theatre of operations it operates under the control of the Commander of the base, line of communications, expedition, division, army corps, etc. It is assigned normally to the supply and maintenance of a division at war strength. It may be assigned to the supply and maintenance of a small or greater number of troops as circumstances require.

16. Ordnance depots have two general uses, depending upon the employment of the troops to the supply and maintenance of which they are assigned. For instance, an ordnance depot may be assigned to a division under-

going organization and training at a concentration camp. Ordnance depots have also been established at ports of embarkation and subdepots will be established at such points along the line of communications and elsewhere as circumstances may require. (G. O. 56, 1917).

17. In any case, the functions of the ordnance depot are the same, although varying in relative importance and in difficulty of accomplishment. The principal functions of the ordnance depot are indicated below. (Notes on the various headings follow, pars. 19-37, inclusive.)

FUNCTIONS OF ORDNANCE DEPOT.

A. EQUIPMENT:
   1. Of organizations.
   2. Of individuals.

B. MAINTENANCE:
   1. Issue of preservatives.
   2. Issue of repair parts.
   3. Repairs in the field-
      a. By special personnel.
   4. Repairs at depot.
   5. Forwarding material for repairs.
   6. Replacement of equipment.

C. SALVAGE:
   1. Unserviceable equipment.
   2. Captured arms, etc.

D. INSPECTION:
   1. Purchases stores and supplies.
   2. Artillery materiel.
   3. Machine-gun materiel.

E. INFORMATION:
   1. Ammunition supply.
   2. Report of principal ordnance stores and supplies.

F. INSTRUCTION:
   1. Operation of machine guns.
   2. Repair of equipment.

The facilities which the depot commander has at his desposal to enable him to carry out above functions are as follows (notes on the various headings follow, pars, 38 to 55, inclusive):

FACILITIES OF ORDNANCE DEPOT.

A. ORDNANCE DEPARTMENT:
   1. Ordnance stores and supplies,
   2. Office furniture and supplies.
   3. Permanent personnel-
      a. Commissioned.
      b. Enlisted.
   4. Funds for purchase.
   5. Technical information.

B. QUARTERMASTER CORPS:
   1. Construction-
      a. Storehouses and offices.
      b. Magazines and oil houses.
      c. Quarters for personnel.
   2. Transportation-
      a. For ordnance supplies.
      b. For special purposes.
   3. Subsistence of personnel.
   4. Pay of personnel.
   5. Material for conversion.

C. ENGINEERS' CORPS:
   1. Construction in field.
   2. Railroad facilities.

D. SIGNAL CORPS:
   1. Communication facilities.

E. MEDICAL CORPS:
   1. Medical attendance and supplies.

F. INSPECTOR GENERAL'S DEPARTMENT:
   1. Disposition of unserviceable property.

G. ADJUTANT GENERAL'S DEPARTMENT:
   1. Military instructions.
   2. Military information.

The facilities under B. C, D, E, F, G, above, are obtainable from the staff departments mentioned by request through camp or division headquarters.

18. In order to fulfill the functions assigned to it with the facilities available for the purpose, the depot must be organized and operated on business principles. Order and system are as essential in the field as in commercial pursuits, but it is of the utmost importance that procedure be reduced to its simplest terms and utilized only for assistance in the attainment of the main object. Under no circumstances should slavish adherence to form or regulation be permitted to

delay the forwarding of supplies. The normal organization of an ordnance depot is given below. Notes on the various headings and subheadings are given in later pages.

4. THE FUNCTIONS OF THE ORDNANCE DEPOT.

19. Hard and fast rules can not be laid down for the guidance of supply officers who are in the field, but certain basic principles have been evolved as the result of past experience and are here stated in order that they may help decide the numberless questions arising in the service of supply in the field. The following paragraphs refer to the corresponding headings and subheadings of the outline.

A. EQUIPMENT.

20. The equipment of organizations and individuals is prescribed in great detail by the War Department unit equipment manuals. The effect of a departure from the equipment specified has already been shown., Questions which arise in connection with such departures should be referred to the division commander or to the officer to whom he has delegated authority to decide such questions in his name, as, for instance, the division ordnance officer, the commander of the line of communications, the ordnance officer of the line of communications, or the commander of the base. Otherwise the depot commander may innocently transgress the wishes of superior authority by loading up organizations with excess equipment and thereby affecting their mobility, or by insufficiently equipping them for the part they may be called upon to play.

21. At concentration camps organizations may be equipped as a result of an order for supplies (see Form 1515, Ord. Dept.) received at the ordnance depot from higher authority, in which case no departures from the number and kind of articles should be made without notifying the authority issuing the order for supplies. The usual case will probably be as the result of the receipt of a requisition (see Form 386, Ord. Dept.) approved by regimental or camp commander. If the number of articles requested, together with those reported on hand, does not exceed that prescribed, issue should be made promptly to the fullest extent from stock, deficiencies being corrected by subsequent issues. Requests for ordnance and ordnance stores which are not standard articles or which are in excess of prescribed allowances should be forwarded to the division commander for appropriate action. (Par. 5, G. O. 58, War Dept.,1916.)

Articles for organizations should be invoiced to the regimental supply officer. Quote as authority for the issue the requisition of the company commander, which has been approved by the regimental, post, or camp commander, or any instructions from higher authority to direct the issue. Unless the necessity of the issue be extremely urgent, insist that requisition be made out with care and in conformity with prescribed lists.

22. The equipment of individuals and of casuals proceeding along the line of communications to join their organizations should conform to that prescribed for the organization to which they are assigned and are to join, unless orders from competent authority direct a different course. The equipment of all divilians, scouts, etc., for which no standard equipment is prescribed will be determined by superior authority. To whomever issued, the articles should be invoiced to the supply officer of the organization to which he is proceeding.

B. MAINTENANCE.

23. The maintenance of equipment is the principal, most important, and likewise the most difficult function of the ordnance depot. The equipment of new troops is a simple matter of determining the number and kind to be equipped and obtaining and issuing the proper number of standard unit equipments, but once issued, this equipment is subjected to such widely varying conditions of use and abuse, that the nicest discernment must be exercised in determining items of standard stock to be kept on hand for maintenance purposes.

24. Articles of ordnance equipment are, in the average case, impossible or difficult to procure commercially. In this respect they differ materially from the equipment or supplies furnished by the other staff departments. Due to inadequate appropriations in times of peace and to some extent to the improvements being constantly made in the field of ordnance, it is, generally speaking, impossible to accumulate proper war reserves for ordnance equipment.

25. In consequence, the maintenance in a serviceable condition of every item of ordnance equipment until every last bit of usefulness has been obtained from it, becomes vitally important.

26. It is manifestly impracticable for the individual soldier or even the individual organization to make all repairs occasioned by active field service. It is as manifestly impraticeable to have all repairs made at the ordnance depot, or arsenals. Granting, this, it then remains to establish a series of repair agencies

gradually increasing in facilities and field of work properly proportioned to the transportation available in each instance.

27. The maintenance of ordnance equipment already issued and in the hands of troops is effected by the issue of cleaning and preserving material, the issue of spare and repair parts for use by the troops themselves, the establishment of repair parts for use in the organization and equipment of mobile repair shops, and finally by the issue of replacing articles of equipment. (See O. D. Pamphlet 1970, Supply and Allowance Tables, for Allowances of Repair Materials.)

28. The basic principles governing the system of maintenance contemplate that each repair agency from the individual soldier to the arsenal shall make all repairs within its facilities as limited by transportation. Unserviceable equipment should be stopped in its progress to the rear and returned to a serviceable condition at the earliest possible stage in order to save transportation and to reduce the number of articles withdrawn from stock for replacement. For instance, the soldier carries in the stock of his rifle, a few small parts available for minor repairs. If he can not effect the necessary repairs, the arm-repair chest, in each battalion may afford the necessary facilities with the help of the ordnance soldiers attached to the line organization. If not, the regimental supply officer may be successful. If not, the mobile repair shop or repair subdepot with its better facilities should be able to make all repairs except the replacement of barrels, etc. The latter can usually be made only at the base depot.

29. In the case of artillery, each carriage carries spare parts for the breech mechanism; the depot has spare guns complete; the battery wagon carries, in addition, a complete spare breech mechanism. Each repair agency endeavors to make repairs within its facilities, but even the depot can not reline guns, so that repairs of this kind reach the court of last resort, the manufacturing arsenal.

30. The ordnance depot is the usual repair agency for all work required by the division to which it is assigned. In order to avoid an undue accumulation of this work at the depot every effort should be made to reach out and solicit it before it reaches the depot. In doing this specially trained mechanics may be sent out individually or in groups to assist the personnel of organizations in the repair of their material. Mobile repair shops or machine-shop trucks are also used to avoid the piling up of repair work in the in the ordnance depot.

C. SALVAGE.

31. When transportation is available for the purpose, all unserviceable ordnance equipment of possible value will be shipped to the case where it should be sorted, disassembled, and serviceable components turned into stock. Unserviceable components should be sorted and scrapped and disposed of as indicated in General Order 36, War Department, 1917. Many cases will arise not covered by instructions, but, in general, everything should be saved which is apparently of greater value than the cost of its transportation to the nearest place where it can be utilized. Another phase of salvage work is the overhauling of captured arms and equipment for possible use against the enemy. The proper action to be taken will be determined by the circumstances in each individual case.

D. INSPECTION.

32. The inspection work at ordnance depots will consist largely of examination of artillery and machine-gun material in service, as outlined in General Order 11, War Department, 1918. This inspection should be utilized as an aid to the repair, alteration, etc., of the material inspected. By closely observing the behavior of material inspected in service and noting the breakages and other defects of most frequent occurrence, the number and kind of articles and components required to be kept on hand for repair purposes can be closely approximated.

33. The other phase of inspection is the examination for acceptance of ordnance and ordnance stores delivered direct to the depot by the contractor. Specifications and other instructions will ordinarily be given in each case by the authority arranging the purchase. The duty of the reserve officer will be to see that the Government obtains in quantity and quality exactly what it is paying for.

E. INFORMATION.

34. The principal informative function of the ordnance depot concerns the ammunition supply. It is vitally important that the division commander have at all times accurate, up-to-date information in regard to ammunition supply in the hands of troops, in their combat trains, in ammunition trains, in ammunition columns, and at the base, as prescribed in revised Tables of Organization. The division ordnance officer is charged with obtaining this information and will un-

doubtedly call upon the depot commander for periodical reports in this regard.

35. The sufficiency of ordnance supplies other than ammunition must also be taken into account by the division commander in making his plans, and the depot commander may be called upon for this information at short notice. With such a contingency in mind, data which affect the supply of principal articles of personal and horse equipment should be kept up to date, taking into account stores (a) on hand serviceable; (b) on hand unserviceable but repairable at depot; (c) in prospect by invoice, requisition, or order for supplies; (d) on hand but obligated for issue by approved requisitions or order for supplies.

This information will be available in ready form if the Balance of Stores system described farther on in these notes if followed.

F. INSTRUCTION

36. Although not a proper normal function of an ordnance depot, it has been found desirable on certain occasions to require depot personnel to supervise the instruction of line personnel in the operation of machine guns from a mechanical standpoint only. Most of this instruction, however, will how be carried on in schools back of the lines, this being contemplated in thelatest plans of the Ordnance office.

37. At these schools there should be illustrated the jams of most frequent occurrence and the best method of reducing them; and the extent to which repairs can be successfully made in the field should be indicated.

5. FACILITIES UTILIZED BY THE ORDNANCE DEPOT.

38. In order to accomplish its various functions the ordnance depot makes use of the facilities of not only the Ordnance Department, but of all other staff departments of the Army, and any other agency made available by circumstances. On account of the absolute dependence of the depot commander on the other staff departments for certain essential facilities, as, for instance, construction of storehouses and magazines, assignment of transportation, etc., it is of no mean importance that he create and cultivate cordial relations with all other staff departments with whom he comes in contact. In all cases, if the services of other staff corps be needed, request for such services should be made through the camp or base commander.

A. ORDNANCE DEPARTMENT.

39. The articles comprising the original issue of ordnance materiel to all organizations which the depot must supply at a camp or cantonment are sent by the Supply division of the ordnance office, to the depot. Future issues are made to the depot on the basis of requirements as ascertained by the Requirements Determination Branch of the Ordnance Office. Only in exceptional cases must the depot requisition for Ordnance materiel.

40. The Ordnance Department furnishes necessary office furniture and office supplies required from time to time for the needs of the depot, and each depot is allowed to purchase these up to a certain stipulated amount.

41. The Ordnance Department furnishes the personnel for ordnance depots, in accordance with the chart "ordnance depot for the Supply of a Division".

42. The Ordnance Department provides necessary funds for the payment of civilian employees and for such purchases as can be made advantageously in open market in the vicinity of the ordnance depot. The making of and accounting for all disbursements for the various ordnance depots is being accomplished by assigning a special depot as disbursing agent for other depots situated in its vicinity.

43. The Ordnance Department furnishes information of a technical character concerning the material adopted for issue by means of pamphlets, specifications, special communications, etc., and also information on any particular question of a technical character raised by the depot commander.

B. QUARTERMASTER CORPS.

44. The Quartermaster Corps is charged with the construction of storehouses, magazines, oil houses, and quarters for personnel in the Ordnance Department. The quartermaster will call upon the depot commander for information in reference to kind and size of buildings desired as well as their location with reference to each other and buildings of other staff departments. Working plans and bills of material for unit storehouses and warehouses suitable for ordnance purposes are given in Ordnance Department drawing class 19, division 1, drawing 107, dated December 31, 1916, which may be used in lieu of better information in this regard.

In place of constructing storehouses, etc., the quartermaster may be able to lease or otherwise acquire

a place already constructed; in which case the spaces to be leased should conform as far as practicable to that estimated on the drawing referred to.

45. The Quartermaster Corps is charged with providing transportation either by commercial railway, motor truck, wagon or pack train for ordnance supplies en route to organizations.

The officer in charge of storehouses is acting quartermaster for the depot and is charged with the execution of all shipping papers and records (see shipping procedure as described in Appendix A). It is, therefore, not necessary for the depot to prepare the invoices required by Army Regulations 1548, this being done only when stores are turned over to a quartermaster not directly connected with the issue of the articles shipped. There will be sent, however, the shipping list required by Army Regulations 1548, and duplicate invoices with duplicate receipts to be signed by the receiving officer.

46. The Quartermaster Corps is charged with providing rations for commissioned and enlisted personnel. (Manual Quartermaster Corps, par. 2290.) Rations are based on the ration return made out by the depot commander. (Quartermaster Corps, Form 223.) The commanding officer will designate the periods for which ration returns are to be submitted.

47. The Quartermaster Corps is charged with providing pay for all personnel except civilian employees. (See Army Regulations, 1913, pars. 1315 and 1316, for time at which these payments shall be made. For manner of making payments see General Order 40, 1916.)

48. The Quartermaster Corps may also be utilized as a source for obtaining raw material for conversion into articles of ordnance equipment, as for instance, lumber for target material, manila rope in bulk for tie ropes and picket lines, etc.

C. ENGINEERING CORPS.

49. The Engineering Corps will probably be charged with consturction in the theater of operations and must therefore be consulted in reference to the establishment of advance bases. It is also charged with the operation of military railways, although the business of the Ordnance Department in this regard will ordinarily be transacted through the Quartermaster Corps.

D. SIGNAL CORPS.

50. The Signal Corps is charged with providing the necessary telephone, telegraph, radio, etc., com-

munication for the use of other staff departments.

E. MEDICAL CORPS.

51. The Medical Corps will furnish medical attendance and medical supplies for the personnel of the ordnance depot, whether commissioned, enlisted, or civilian.

F. INSPECTOR GENERAL'S DEPARTMENT.

52. Among other things the Inspector General's Department is charged with the disposition of unserviceable ordnance property, and every effort should be made to keep in touch with the division inspector in order to insure, from an ordnance viewpoint, the most advantageous disposition of property presented to him for condemnation. If practicable, he should be shown the facilities for repair work at the ordnance depot in order that he can the more intelligently decide whether or not any given article can be repaired satisfactorily at the base. He makes his report on Form 1, Inspector General's Department (inventory and inspection blank), on which he indicates proper disposition of all property that he inspects. (See Army Regulations, 1913, pars. 678 and 710-725; C. A. R., 56 and 57; and Article LXVII.)

G. ADJUTANT GENERAL'S DEPARTMENT.

53. The Adjutant General's Department will furnish the depot commander with the instructions of the division commander in reference to the amount of reserve stock required to be carried on hand, the allotment for transportation of ordnance supplies, the distribution of reserve ammunition, etc.

54. This department will also furnish on request data in reference to strength, station, etc., of troops in the division in order that ordnance stores may be kept on hand in sufficient quantity and may be sent to them by the most direct routes. Information in respect to expenditures of ammunition creating unusual demands upon the ordnance depot will also be furnished by this department.

55. Application for temporary personnel as special duty men, convalescents at the base hospitals for light duty, etc., should also be made to the representative of this department.

6. THE ORGANIZATION OF THE ORDNANCE DEPOT.

A. Personnel.

56. The personnel of an ordnance depot has been that described in General Orders, No. 3, 1912 (Ordnance Office). This was intended to be augmented by "the services of one mechanic from each Field Artillery regiment and one artificer from each Infantry and Cavalry regiment" (p. 4, G. O. 2, O. O., 1912). Experience with the punitive expedition in Mexico indicated that small reliance could be placed on assistance from this source, because organizations needed their mechanics and saddlers in the field more than at any other time and resisted losing their services to the utmost. Furthermore, there is considerable doubt whether the Ordnance Department should attempt to secure assistance from this source. By taking repair men from the field the work they would have done if not detailed away must be done eventually at the depot, with resultant delay and increased expense for transportation.

57, Accordingly the Ordnance Department at present endeavors to furnish all necessary personnel, commissioned, and enlisted, permanently assigned to ordnance depots. In emergency it may still be necessary to have recourse to the earlier method of securing a portion of the depot personnel by detail from the line. To replace this detailed personnel, to perform the increased work due to the greater number of individuals and equipment now comprising a division, as well as the increased work due to the higher percentage of replacements now estimated as probable from experience on the Mexican border, the personnel to be assigned to ordnance depots has been increased greatly over that indicated in General Orders, No. 3, Ordnance Office, 1912.

Administration of Field Ordnance Depots.

The policy of having no civilian personnel at the depot obviates:-

(a) Difficulties experienced in obtaining subsistence, shelter, and clothing for civilians in the field.

(b) Difficulties in obtaining civilian personnel for duty where living conditions are not to their liking.

(c) Difficulties in obtaining satisfactory civilian personnel at reasonable rates of pay.

59. The depot company, as at present outlined, consists of 5 officers and 100 men, organized and with duties as shown on the accompanying chart. (Personnel of a Division Ord. Depot.) This organization will probably be the one adopted for the depot functioning under normal conditions; but changes might be made if there were radical increases or decreases in the size of the division which the depot supplied, or if the depot were assigned to the supply of more than one division.

B. DUTIES OF THE COMMISSIONED PERSONNEL.

(See G. O. 56, 96, 137 W.D.1917).

Division Ordnance Officer.

60. The division ordnance officer, though not belonging to the depot personnel proper, is intimately connected with the depot work, and his general position and duties should be well understood by the depot personnel.

61. These duties are not clearly defined, but they are exceedingly important and require close study and a wide knowledge of ordnance and military affairs. The Div. O. O. is on the division staff, with the rank of major; and his duties consist thus, in general, in common with other staff officers, of representing his Commanding General in all matters relating to his (the staff officer's) department. He should at all times look after all matters relating to the Ordnance Department which require action by the Commanding General. This includes the preparation of all reports, letters, indorsements, approval of requisitions (G. O. 58, 1917), etc., required by the division headquarters in connection with ordnance work. For this purpose he has the use of one clerk; and additional clerical work required will be done by the Division Headquarters' clerical force.

62. The Div. O. O. will be prepared at all times to furnish the Commanding General with a complete report as to the condition of the supply of Ordnance Stores and equipment for the division. This includes both the equipment in the depot and in the hands of troops, and is especially important as regards ammunition. It is probably that reports will be submitted to the Div. O. O. daily as to the state of the ammunition supply in the hands of all organizations, depots, and advance depots pertaining to the division. In regard to equipment and arms, it is probable that each organization will be required to report at frequent intervals any discrepancies in the unit equipment. From the information which he gets

from the organizations and the depot, the Div. O. O. must prepare a consolidated record showing each day the exact condition of the ammunition and equipment supply.

63. The Div. O. O. must make a thorough study of the maps of the field of operation of his div- and must be prepared to indicate the location of his depot, ammunition dumps, routes for supply, and the like, but must in addition be prepared to assign new locations as the position of the fighting line changes.

64. The Div. O. O. must through his subordinates (see further on) and his own observations keep constant watch on the action of all ordnance equipment and supplies. He must investigate every report of defective material as soon as it occurs and make a complete report both to his Commanding General and to his superior Ordnance Officer, giving the cause of the trouble and his recommendations for remedying it.

65. He must be prepared at all times to entertain and investigate any suggestions made by the troops as to improvements in the ordnance equipment, or as to new equipment which might be of value.

66. He will keep in close touch with the ordnance depot assigned to his division, and is personally responsible that the work in the depot is properly performed. He will keep himself advised at all times of the plans of his Commanding General and, where any operation is contemplated, he will be responsible that the increased supply of ammunition and equipment necessary is available when needed. He will be prepared to give technical advice to officers of the artillery and other branches, when requested. He will be responsible that the methods of storing supplies are the best available and the magazines, ammunition dumps, and the like are so located as to minimize the danger of explosions. He will be responsible that proper steps are taken to conceal the magazines and dumps.

ASSISTANTS TO THE DIVISION ORDNANCE OFFICER.

67. There should be two captains or first lieutenants as assistants to the division ordnance officer. One of these should have supervision over the supply of artillery ammunition and equipment of the division; the other should have charge of the supply of personal equipment, small arms, ammunition and special trench warfare material---such as trench mortars, hand grenades, etc.

68. These assistants should perform such parts of the duties outlined as pertaining to the Div. O. O. as he may direct. In addition they should keep in close touch with the Commanding Officers of the regiments and endeavor to increase the effectiveness of the Ordnance material used by the troops, by reporting desired changes in the amounts required, or new types of equipment needed. They should also be prepared to instruct in the care and preservation, repair and proper usage of Ordnance equipment in the hands of troops. They should be especially active in seeing that the regulations in regard to the turning in of captured or damaged arms, ammunition or equipment are complied with and might, if necessary, be provided with details of enlisted men to assist in the collection of abandoned equipment, scrap, etc.

THE DEPOT COMMANDER.

69. The duties of the depot commander are so evident that little need be said about them. He should keep in touch with the division ordnance officer at all times and should be prepared to furnish him with information on short notice as to the condition of supply of any item. He should sign and read all correspondence coming to or leaving the depot. He should obtain from the Div. O. O. a statement showing the amount of ammunition to be kept for each gun, machine gun, or rifle in service. He should keep himself informed through the Div. O. O. of the plans of the Commanding General and should be prepared at all times to conform to them. His proper post is with the depot, and he should be with it at all times. He should make a thorough inspection of his depot each day and correct any defects noted.

70. He should require a daily report as to the condition of supply of arms and ammunition and equipment on hand in the depot, showing the actual amount of ammunition and its location, and the amount of all items of equipment or arms where the supply is below the minimum.

71. Besides his regular duties in connection with the depot work, and as commanding officer of the depot ordnance company, the Depot Commander may often be called upon to act on boards of officers, courts-martial, etc. These duties and probable illness may cause him to be absent or away from duty at times; and each of his commissioned assistants should therefore be well acquainted with the depot work as a whole, that any of them may assume, temporarily, the command of the depot.

OFFICER IN CHARGE OF ACCOUNTS DIVISION.

72. The officer in charge of the accounts division is responsible for the maintenance of the proper supply of each article in the depot. He should act as property officer. Ordinarily this officer will be the senior of the depot commander's assistants, acting for the latter in his absence.

OFFICER IN CHARGE OF STOREHOUSES.

73. The officer in charge of storehouses has charge also of all magazines, ammunition dumps, and so on pertaining to the depot. He is directly responsible for the proper storehouse layout, proper physical handling of stores, and the instruction and discipline of the teams working in issuing and receiving.

74. This officer is acting quartermaster, and signs, as such, all bills of lading and shipping papers. He should keep in close touch with the Quartermaster and Engineer Departments, so as to expedite transportation of his shipments.

OFFICER IN CHARGE OF SHOPS.

75. The officer in charge of shops will have direct supervision of the making of repairs to materiel. He should become well acquainted with the nature of repairs possible and to be desired on different kinds of equipment; and he should personally pass upon articles brought into the sorting room, directing the general disposition of the same. For this purpose he may call in the non-commissioned officer in direct charge of the repairs involved--the master saddler, master machinist, etc.---to aid him in determining the exact nature of the repairs advisable. In the absence of the machine-gun officer (see next paragraph) he will have direct charge of the repair work on machine-gun materiel.

OFFICER IN CHARGE OF MACHINE GUN AND INSPECTION DIVISION.

76. The machine gun officer, under contemplated plans, may be taken from the depot and put directly under the Div. O. O. Even then he will be required to keep in touch with the work of the machine gun section of the depot shops, and should advise the officer in charge of shops as to the methods of repair, etc.

77. His principal duties are, however, as instructor and demonstrator in the different types of guns. He should establish a school back of the lines, and in addition should visit machine-gun posts in the front line. Most of his time should be spent here, not at the depot.

C. OFFICE PROCEDURE.

78. Whatever personnel may be assigned to the Ordnance depot, it is essential that it be organized simply and logically, that all members have a general understanding of normal office procedure, as well as detailed knowledge of their own duties. The normal procedure required by regulations in time of peace will doubtless seem somewhat complex and to a certain extent unnecessary. However, it represents the administrative mechanism found necessary to safeguard the interests of the individuals, staff departments, and the Nation itself in accounting for Government property. In time of peace these requirements are paramount, the basic idea being to see that money appropriated for a specific purpose is spent for that purpose and no other, and that Government property is used without avoidable waste, loss, or damage.

79. Incidentally, this seemingly complex procedure yields results of real military value. In the first place, it inculcates an attitude of thrift and a sense of responsibility with reference to property. It also yields valuable information for war preparation purposes in data on cost of maintenance, percentage of replacement. In the normal routine of peace, the depot commander knows exactly of what his stock consists, how long it will last, and how long it will take to replenish it. Accurate accounting is also of value in the field in time of war. As war already exists its value as preparation for war ceases and its value as a preventative of unnecessary waste or loss increases.

7. THE OPERATION OF THE ORDNANCE DEPOT.

A. Administrative Division.

1. Military Affairs.

80. As is indicated on diagram of organization of the Ordnance Depot the administrative division operates under the direct supervision of the Commanding Officer. It is charged with the preparation and rendition of all military papers, rolls, returns and general company administration. The following references should be studied in detail in order that a proper knowledge of company administration may be

gained.

(a) Army Regulations 1913 as revised to April, 1917, Articles XVI, XVII, XVIII, XIX, XXI, XXII, XXV, XXX, XXXIII, XXXIX, LIII, LV and LXIX. Paragraphs 1209 to 1238 and 1315 to 1385.
(b) G. O. 40, W. D., 1916.
(c) Q. M. C. Manual, paragraphs 1553, 1565 and 2227.
(d) Manual of Courts Martial. Read for Articles of War, and for method of preparing charges.
(e) Extracts from G. O.'s and Bulletins, W. D., September, 1917, relating to Regimental and Company Administration.

Before filling out any of the papers listed below, or for that matter before filling out any blank form, read carefully the instructions thereon and also all Army Regulation paragraphs and orders referred to. Compliance with these will mitigate the delay and trouble resulting from careless paper work.

No. 3, A. G. O.--- Notification of Discharge.
(See A. R. 155, M. Q. M. C. 1384.)

81. Filled out, in pen, by the officer who prepares the final statement (see below, W. D. 370), only where an enlisted man is discharged at a place at which there is no available officer provided with funds to make payment. Form shows when soldier was last paid and his credits and debits in words and figures. It is signed both by the company commander and by the soldier and forwarded at least one week before the discharge takes effect to the Q. M. who is to pay.

The officer issuing the final statement informs the discharged soldier of the location of the paying Q. M.

No. 17, A.G.O.---Certificate of Disability for Discharge.
(See A. R. 139, 159-161.)

82. Made out by the C. O. on basis of information furnished by surgeon and sent to hospital where soldier is sick. The form describes the soldier and states the nature and cause of his disability. C. O. also certifies whether or not disability was incurred in line of duty and the extent or degree of disability. Surgeon fills out and signs surgeon's

certificate and forwards paper to Commanding General of Division along with a medical history of the case. Certificate is then returned (through same channels as forwarded) to the depot after being acted on and indorsed by the Commanding General. If discharge is authorized, C. O. signs the soldier's discharge certificate and last endorsement on form 17, sees that soldier is furnished with final statements, in duplicate, and forwards certificate direct to A. G. A. (Adjutant-General of the Army).

The certificate is never given to the soldier. It is never made out in duplicate.

No. 26, A.G.O.--Field Return.
(See A.R. 812,818)

83. Whenever the organization leaves a station establishes a new post or temporary camp, sails from a port of embarkation or arfives at a port of destination, this return is filled out in triplicate; one copy goes to the immediate superior of the officer commanding the organization, one goes direct to the A. G. A.; the third is retained.

In the field this blank will perhaps be used for any return of the organization required by higher authority.

No. 29, A.G.O.--Service Record.
(See A. R. 104, 281, as changed by C. A. R. 56; A. R. 1451; par. II, G.O. 206, 1905, and G. O. 63, W. D., 1916.)

84. Prescribed by Bulletin No. 24, W. D., 1917, in place of O. and A. Card and Descriptive List.

A service record is made out for each soldier, when he enlists or re-enlists, by the recruiting officer. When the soldier is first assigned to an organization, the report of assignment is filled out, detached from record and mailed to A. G. A. In this service record are kept a complete history of the Soldier's service and his accounts with the Government. Entries are made as needed to keep record up to date. The record follows the soldier by indorsement wherever he goes and when his service is ended the record is closed and filed with the records of the organization to which the soldier last belonged.

The record is a great help in making out pay rolls, muster rolls, etc. Although not required by regulations, it is best to keep a true copy of every man's service record.

No. 30, A. G. O.--Condition of Organization.
(See A. R. 811, 812, 813, 814, and A.W.57.)

85. This form is prepared in duplicate, on the first day of each month. The original is sent to the A. G. A. Duplicate retained.

The form shows the condition of the organization at midnight on the last day of the preceding month. The status of commissioned personnel is given by number and name, while that of enlisted personnel is given by number only. Alternations since the last monthly return are given in figures, while a "record of events" presents in brief notes the services performed by the company during the month. Separate returns are made out for men in the regular establishment, for those in the National Army and for those in the Reserve. Thus the depot might transmit three separate returns on Form 30, A. G. O., each month.

In case of a line company, the return is submitted to regimental headquarters where it is consolidated with the returns of the other companies into a regimental return. This return is then forwarded to the A. G. A.

No. 34, A. G. O.--Inventory of Effects.
(See A. R. 84, 162-167, 1367.)

86. This form is made out by the company commander, in case of the death of any soldier. It is prepared in triplicate, two copies being forwarded, with the final statement to the A. G. A. The third copy is retained in company records.

The form is prepared so that proper disposition can be made of the deceased soldier's effects.

The same blank may be used to inventory the effects of a deceased officer.

No. 61, A. G. O.--Muster Roll (No. 21, A. G. O., for Detachments; No. 61-a, A. G. O.--Extra Sheet).
(See A. R. 132, 134, 148, 152, 807-810, 1448, 1472, 1572,
Compilation of General Orders, pars. 51, 54, 90, 180, 194, 273, 303. G. O. 63, W. D., 1916.
A. W. 12, 13. See also below, Form 483,
A. G. O.--Model Remarks for Muster Roll.)

87. The Muster Roll is prepared in duplicate on the last day of February, April, June, August, October, and December from data on the service records, morning reports, sick reports and muster roll cards. This

roll is the official military record of the soldier to which reference is made in the investigation and settlement of claims or questions affecting the officers and enlisted men whose names are borne thereon, for the period covered by the roll. Both rolls are signed by the C. O. and are then sent to the mustering officer who completes and signs the certificate at the end of the rolls. Within three days after the muster he forwards one copy to the A. G. A. while the other is returned to the organization and filed with the permanent records.

On the month when muster rolls are not prepared the organization is mustered on the pay roll.

No. 66, A. G. O.--Furlough.
(See A. R. 106-113, 1233, 1236, 1237, 1238--
Comp. General Orders 36.)

88. Form is prepared by company clerk and after being signed by soldier and C. O. it is forwarded along with a memorandum slip to the headquarters of the Division Commander, i. e., next highest administrative authority. If organization is serving at a post the furlough goes to the Post Commander; if with a regiment to the Regimental Commander.

The memorandum slip contains data as to

Purpose of furlough.
Number of previous furloughs.
Strength of company.
Number of men allowed on furlough.
Number of men on furlough.
Enlistment period of soldier and date of current enlistment.
Whether or not soldier can defray traveling expenses both ways.

If the furlough is approved, it is signed at the bottom of the first page and is returned to the company and given to soldier. When soldier returns company clerk makes entries required on third page and takes furlough to a Q. M., who will pay him "Commutation of Rations" for the furlough period. The furlough serves as a sub-voucher to the Q. M.'s abstract of disbursements.

Entries should be made from the furlough to the morning report and to page 4 of the service record.

No. 95, A. G. O.-- Descriptive List of Deserter.
(See A. R. 118, 119, as changed by C. A. R. 58.)

89. As many copies of these cards as are necessary are prepared by the C. O. for distribution to marshals, sheriffs, police officers, and others. One of these is forwarded directly to A. G. A. with the prescribed report of desertion.

In practice, these cards are prepared by the company commander and sent to the next highest administrative authority for signature and distribution.

No. 149, A. G. O.--Casualty Return.
(See A. R. 818.)

90. Immediately after an engagement where casualties have occurred, the C. O. will prepare this return in triplicate accounting for all casualties by names and figures. One copy is forwarded to the immediate superior commander, one copy is mailed direct to A. G. A., one copy is retained.

No. 332, A. G. O.--Morning Report.
(See A. R. pars. 280, 281, 370; M.Q.M.C. 2289--Model on front inside cover of Form.)

91. The morning report is a running record of the events of the company compiled from information obtained at morning roll-call. It shows at the hour it is submitted the exact condition of the company as to the number of officers and enlisted men in the various grades present for duty, on extra and special duty, sick, in arrest or confinement and absent from the command. It also shows the number of animals on hand. All changes since last report (day before) are noted by name in remarks column on right-hand page, and by number on left-hand page. If there is no change since last report, the notation "no change" is written in on both the left and right-hand pages.

The report also includes a ration account in which is kept by numbers the rations to be added or deducted on the next ration return submitted by the company. These are based upon the changes in numbers as shown in the remarks column.

A record of general events in the last pages of the report is the company history for the month. The report is turned in daily, at a time specified in orders, for examination and signature of commanding officer. The form provides for 31 days' record and is filed at the end of the month with the permanent records of the company. Here it is kept five years and then destroyed.

Only one morning report is required to be kept, but it is advisable to retain a copy.

No. 338, A. G. O.--Guard Report.
(See A. R. 211, and Manual, Interior Guard Duty.)

92. This report gives the names of the members of the guard and prisoners and records any unusual occurrence with which the guard is concerned.

The report provides for a month's record, but is submitted daily to the commanding officer, by the officer of the day.

Full instructions for the preparation of the report are contained on the first two or three pages of the form.

No. 339, A. G. O.--Daily Sick Report.
(See A. R. 280, 381, 1471, 1472.)

93. On this report are entered the names of all enlisted men requiring medical attention and such of company officers as are relieved from duty because of illness. The date the soldier was taken sick and whether or not illness was contracted in line of duty is entered on the company officer's section of the report. The report is then signed by the company officer and sent over to the hospital at sick call. The medical officer then fills out his section of the report, noting the disposition of the case (hospital, quarters, duty, etc.), and verifying the line of duty report of the company officer.

As long as the man is in the hospital his name is carried on the daily sick report.

The sick report is preserved in the organization records five years, after which time it may be destroyed.

No. 342, A. G. O.--Duty Roster.
(See A. R. 282, 355-364. See model and instructions on inside of form. "Details and Rosters"--Manual of Interior Guard Duty.)

94. This roster records all details for guard duty, kitchen police and other service details except authorized special and extra duty details.

One roster is kept for the enlisted men in the company and if needed another roster may be maintained for the depot officers.

No. 380, A. G. O.--Designation of Beneficiary.
(See A. R. 1385.)

95. This form is filled out in the case of an enlisted man, at the time of his enlistment; in the case of an officer upon appointment. It is mailed at once to A. G. A.

No. 383, A. G. O.--Requisition for Blank Forms and Books.
(See A. R. 1253, 1351, 1571; Cir. 34, W. D., 1908; Compilation of General Orders, par. 188; G. O., 6 W. D., 1914.)

96. This form is used to requisition for blank forms and books furnished by the Adjutant-General's Dept. The requisition is made out in duplicate, one copy being mailed to the Adjutant-General of the Division, the other copy being retained in the depot files.

No. 415, A. G. O.--Report of Death and Disposal of Remains.
(See A. R. 45, 83, 87, 162, 162½, 167; G. O. 67, W. D., 1910.)

97. Forwarded to the A. G. A., by the C. O., on death of soldier.

No. 429, A. G. O.--Efficiency Report.
(See A. R. 829-833; Compilation of General Orders, Art. XXIII.)

98. Used as a report on the work of the officers of the depot. Transmitted by C. O. on December 31st of each year to A. G. A. through intermediate commanders. These reports have been suspended during the war period.

No. 489, A. G. O.--Model Remarks for Muster Rolls.

99. This is a form furnished by A. G. A. to serve as a guide in the preparation of the muster rolls.

No. 525, A. G. O.--Honorable Discharge.
(See A. R. 135, 139-159, 1376, 1381, 1572; par. 4. Cir. 5, 1903 as ammended by par. 1. Cir. 41, 1910, A. G. O; Compilation of General Orders, pars. 44, 49, 51; par. IV, G. O. 63, 1916.)

100. When soldier is to be discharged, C. O. causes discharge certificate and final statements to be prepared, properly signed, and given to soldier. The discharge certificate must not be prepared on the typewriter, nor must it be made in duplicate. This form is used when soldier's service has been honest and faithful and he is entitled to re-enlistment in service.

No. 526, A. G. O.--Discharge.

101. For references and instructions as to preparation, see under No. 525, A. G. O. This form, on green paper, is given when soldier is discharged under conditions which do not warrant his reenlistment in service.

No. 527, A. G. O.--Dishonorable Discharge.

102. For references and instructions as to preparation, see under No. 525, A. G. O.

This form, on yellow paper, is used when soldier is dishonorably discharged by sentence of court-martial or military commission.

No. 594, A. G. O.--Charge Sheet.
(See A. R. 120, 124, 126, 922-943; M.C.M. 61-76, 79, 306, Appendix 3.)

103. When an officer finds a soldier has committed an offense for which he is liable to trial by court-martial, he will prefer charges against the soldier on the charge sheet. These charges correspond, in civil practice, to an indictment before a criminal court. In preferring charges, officers should be careful to word them so as to fully describe the offense. The forms for specifications included in the manual for courts-martial should be adhered to at all times.

The charge sheet will be prepared in triplicate and forwarded to the officer having the power of appointing court.

Full instructions as to preparation and disposition of the papers are given on form itself.

Form No. 599, A. G. O.--Property Return.
(599-a A. G. O. is front cover, 599-b A. G. O. is back cover; see A. R. 678, 681A-N, 1511, 1549; O. P. R. 205.)

104. This is the return on which the C. O. of the depot will account for the Ordnance Property in the hands of the enlisted personnel of the depot. This will be kept in duplicate, the original being sent to the Chief of Ordnance at the end of the semiannual accounting period.

Form No. 602, A. G. O.--Statement of Charges.
(See A. R. 686; also C. A. R. 56; G. O. 58, W. D., 1917.)

105. This form takes the place of O. D. 94, and Q. M. C. 208. When enlisted members of the depot personnel lose, damage or destroy any of their personal equipment, they must be charged for the same on the pay rolls of the company; but never without a survey if the man demands it.

The C. O. will monthly make out this form in duplicate, consolidating all the charges against enlisted men deducted on the pay roll. Both copies will then be turned over to the supply officer who either replaces the property enumerated, on the statement or issues a credit slip for the same.

Form No. 604, A. G. O.--Requisition for Articles for Maintenance of Equipment "C". (See A. R. 681 A-N (C. A. R. 56).)

106. This form will be used in requisitioning for certain expendable articles of Ordnance Signal, Quartermaster and Engineering Property. It should be submitted in duplicate to the supply officer (a third copy being retained in company records) in accordance with prescribed allowances, whenever the expendable articles are required.

A separate requisition must be submitted for property of each bureau.

Form 601, A. G. O., will be used in requisitioning for ammunition to be expended by depot company in target practice, etc.

O. D. Form No. 152--Transfer of Ordnance Property. (See A. R. 1535, as changed by C. A. R. 56.)

107. Made out in quadruplicate when ordnance property is transferred with any single member of the depot enlisted personnel. Instructions and disposition given in reference to Army Regulations.

O. D. Form No. 152-D--Transfer of Ordnance Property. (See A. R. 1535 as changed by C. A. R. 56.)

108. Made out in quadruplicate when ordnance property is transferred with a detachment composed of enlisted men of the depot personnel, under the command of an officer or non-commissioned officer.

Full instructions given in Army Regulations reference noted above.

O. D. Form No. 153--Receipt Roll.
(See A. R. 1535, as changed by C. A. R. 56; used in conjunction with O. D. Form 152D.)

109. Full instructions for use given in Army Regulations paragraph referred to.

O. D. Form No. 2573--Return of Enlisted Men.

110. This is prepared in duplicate by every officer in charge of a detachment of enlisted men of the Ordnance Dept. One copy is sent in on the first day of each month to the Chief of Ordnance. The other is retained in organization records.

W. D. Form No. 336--Officers' Pay Voucher.
(See M. Q. M. C., Appendix 1; A. R. 1256-1271.)

111. This public voucher is made out by the officer and forwarded monthly to paying Q. M. It is used by officers on the active list and by retired officers when detailed on active duty.

Provision is made on the form for deduction of income tax.

The officer need sign the receipt only when payment is to be made by cash.

W. D. Form 337--Public Voucher---Mileage to Officers.
(See M. Q. M. C., Appendix 1; A. R. 1279-1298.)

112. This is the voucher on which mileage due individual officers for travel performed under competent orders is paid.

See also below Q. M. C. Form No. 13-a.

W. D. Form No. 366--Pay Roll of Enlisted Men--(W. D. 366-a is Follow Sheet.)
(See A. R. 807-810, 1318-1321, 1326, 1329, 1332-4 1337; G. O. 21, W. D., 1916; G. O. 40, W. D., 1916; Index M. Q. M. C.; Compilation G. O. 115, 192, 194, 305, 321.)

113. This roll is used for the pay of enlisted men only. It provides for entries, including the name and rank of each soldier, arm of the service, enlistment period, amount of pay and all stoppages against pay, with explanation of reasons for making the stoppages. The remarks column includes only those items which affect the pay of the man.

The pay roll is made out in triplicate at the end of every month. Two copies (one of them being signed by every man to be paid, if payment is to be in cash) are forwarded to the Q. M. who is to pay. The third copy, after being duly extended, is retained with company records.

Full instructions as to preparation of the pay roll are given in G. O. 40, W. D., 1916, which is included in M. O. M. C.

W. D. Form No. 370--Final Statement.
(See A. R. 135, 140-143, 150, 152, 155, 341, 345, 648, 1163, 1335, 1362-1369, 1375-1381; Compilation of General Orders 193; G. O. 5, W. D., 1916; G. O. 11, W. D., 1916; par. 4, Cir. 5, 1909, as amended by par. 1, Cir. 41, 1910, A. G. O.)

114. The final statement is made out when a soldier is separated from the service. The purpose of the form is to facilitate the settlement of the soldier's accounts with the Government. The settlement is brought about when the soldier turns the statements over to the Q. M.

The final statement is turned over to the soldier by his C. O. in duplicate, unless he has forfeited all pay and allowances and has no deposits due him. In this case, no final statements are furnished him. Another exception is where service is terminated by soldier's death. When this occurs only one copy of the final statement is made out and this copy is forwarded to A. G. A. with two copies of the inventory of effects. (See above, under A. G. O. 34.)

The final statement must never be made out on typewriter.

Q. M. C. Form No. 8-a--Soldiers' Deposits.
(See A. R. 1335, 1361-1369, 1380; M. Q. M. C. 1310, 1311, 1318, 1323, 1809.)

115. This is a form letter of report to the Q. M. C. of the Army containing names, rank, organization and amount of deposits made with a single Q. M. on a given date. This is made out in duplicate and is signed by the C. O. One copy is mailed direct to the Q. M. G. of the Army the day the deposits are made. The other copy is retained in organization records.

Q. M. C. Form No. 13-a--Mileage Statement.
(See A. R. 1279-1298; M. Q. M. C. Index.)

116. This form is made out, in duplicate, by

officer traveling on a mileage status. It lists in detail points of travel, distances, etc., and is used when the number of trips and the data required are too many to enter on mileage voucher, W. D. Form 337. Both copies are turned over to the Q. M. who is to reimburse the officer.

Q. M. C. Form 38--Allotment of Pay.
(See A. R. 1347-1360; M. Q. M. C. 1057-1083.)

117. This form is made out, in duplicate, when a soldier desires to allot his pay or a portion thereof to another person. Both copies are signed by the soldier and certified to by the company commander. The original is forwarded direct to the Q. M. G. of the Army, while the duplicate is retained in the allotment blank book as a permanent record.

A notation of the allotment is entered on the monthly pay roll as a charge against the allotter.

Q. M. C. Form 39--Discontinuance (Soldier's Allotment).
(See A. R. 1347-1360; M. Q. M. C. 1057-1083.)

118. This is made out in duplicate, when soldier desires to discontinue his allotment before the expiration of the period for which it was made. Both copies are signed by the allotter and certified to by the C. O. One copy is sent to the Q. M. G. of the Army, the other is retained in depot records.

A notation of the discontinuance of the allotment is made on the pay roll.

Q. M. C. Form 41--Soldier's Deposit Book.
(See A. R. 1335, 1361-1369, 1380; M. Q. M. C. 1310, 1311, 1318, 1323, 1809.)

119. When a soldier makes his first deposit for credit in the "deposit fund" the quartermaster gives him this book of blank receipts. The book is usually kept among the company records. When the soldier desires to deposit funds, he notifies the company clerk and a deposit receipt is filled out in the soldier's book. The receipt is signed by the Q. M. when deposit is made and is attested to by the C. O. in the lower left-hand corner. A notation of the deposit is also made on page 8 of the soldier's service record.

Q. M. C. Form 42--Certificate for Commutation of Rations Claim.

(See A. R. 1111, 1212, 1223, 1224, 1226, 1228, 1229, 1231-1238, 1443; M. Q. M. C. 1953.)

120. This certificate is filled out and turned in to Q. M. in all cases of claims by an enlisted man for communtation of rations allowance, unless he is on travel orders or on furlough. The certificate must be signed by a commissioned officer when practicable.

Q. M. C. 160--Requisition (160-a is the extra sheet.)
(See M. Q. M. C. 2227; Cir. 18, Q. M., G. O. 1916.)

121. This is a general requisition form and is used in obtaining all supplies and services furnished by the Q. M. C. except those for which special forms are provided. For special blanks see Forms 601 and 604, A. G. O., and Q. M. C. Forms Nos. 165, 166, 167, 176, 204, 211-a, 213.

Q. M. C. 164--Directions for Measuring for Clothing of Special Sizes.
(See A. R. 1155.)

122. This is a form for measurement to be used only when an enlisted man cannot be properly fitted with the regular sizes. The C. O. must certify, on the form, that such is the case.

Q. M. C. Form 165-b--Statement of Clothing Charged to Enlisted Men.
(See A. R. 116, 686, 687, 1157-1168½ and G. O. 97, 1917.)

123. This form has been used for listing names of enlisted men to whom clothing has been issued on requisition and amounts charged each. Since clothing is no longer issued on a money basis, its use will no doubt be discontinued.

Q. M. C.166--Requisition for Tableware and Kitchen Utensils.
(See A. R. 301, 1177, 1178; M. Q. M. C. 2235, 2654, 2796, 2843. See also G. O's giving allowances.)

124. Made out in duplicate at time supplies are required. Nowmally requisitions of this kind are submitted quarterely. One Copy goes to the Q. M: other retained for record.

Q. M. C. Form No. 167--Request for Exceptional Articles of Subsistence Stores.
(See M. Q. M. Index.)

125. This request is made out, in triplicate, when it is desired to procure authorized exceptional articles of subsistence stores (not stocked by the Q. M.) to be paid for by requisitioning officer. Two copies are forwarded to the Q. M., who is to procure the stores; the third copy is retained for record.

Q. M. C. 176-Requisition.
(See A. R. 1181, 1182, 1217 (C. A. R. 58), and M. Q. M. C. 2193, 2227.)

126. This form will be used in making requisition on Q. M. for the allowance of corn brooms, scrubbing brushes, mops, sapolio, concentrated lye and stove polish. It is prepared in duplicate, original going to Q. M. Duplicate being retained in book. Allowances for these expendable articles are prescribed in Army Regulations.

Q. M. C. 180--Abstract of Clothing.
(See A. R. 1157-1168½ and G. O. 97, 1917.)

127. This form has been used for abstracting the clothing drawm by enlisted men. Unless special instructions for its use are given by the Q. M. G., it will no doubt be discontinued, as suggested of Form 165-b. (In this connection see simple method of accounting for clothing issues, given in G. O. 97, 1917.)

Q. M. C. 204--Requisition for Stationery.
(See A. R. 1062-1065.)

128. This requisition is made out in duplicate for stationery for any military purpose. One copy is forwarded to the Q. M.; the other is retained in company records. When the Q. M. has the stores ready the C. O. signs the receipt on the face of the blank and gets the stores.

Q. M. C. 207-a--Certificate of Breakage--China and Glassware.
(See A. R. 1178; M. Q. M. C. 2654, 2655, 2706.)

129. This is made out in duplicate and a copy is submitted to Q. M. at the end of the period to which it pertains. The duplicate is retained for record. The Q. M. either issues articles listed on the certificate or gives C. O. credit slip for the same.

Q. M. C. 211-a--Requisition for Fuel and Bedding.
(See A. R. 1036-1048, 1084-1085; M. Q. M. C. 2227; Annual allowances in orders.)

130. This form is used in the field, in requisitioning for authorized allowances of fuel for cooking and heating purposes and for incinerators and kitchen pits and for bedding for enlisted men. Issues in excess of prescribed allowances must be approved by the commanding general in the field. The form is made out in triplicate, two copies going to the Q. M., the third being retained.

Q. M. C. 213--Requisition for Clothing in Bulk.
(See A. R. 1157-1168½ and G. O. 97, 1917.)

131. When many men in the organization require clothing, the following procedure is gone through; Each man's wants are ascertained and a bulk requisition made out, in triplicate, on Form Q. M. C. 213. Provision is made for listing quantities of articles required, issued, returned to Q. M., net issued and unit prices. C. O. signs all three and sends to Q. M. When clothing is received the C. O. or representative signs receipt on back of requisition, while the Q. M. signs certificate. C. O. then gets one of the requisitions, while the other two are kept by Q. M. The clothing is issued to men on the individual slips and soldiers' receipts are obtained.

Q. M. C. Form 223--Ration Return.
(See A. R. 1205, 1209-1211, 1214, 1215, 1220; Compilation General Orders, pars. 111, 233, 255; M. Q. M. C. 2289, 2328, 2403-2415, 3907.)

132. This form is a book consisting of original and memorandum sheets bound alternately. It is the requisition signed by C. O. for issue of rations and authorized extra issues. It is filled out for the ration period, which may be anything from ten days

to a month, as determined by the C. O. It is made out in duplicate, the original being signed by the C. O. and sent to the Q. M. Duplicate is retained.

Data for the ration return is obtained from morning report. "Persons present" is gotten by adding together all men under heading "Present" on morning report and deducting from this number those who do not take the meals with company. "Plus" column in morning report gives "additions.". "Minus" column gives deductions. Difference between "Plus" and "Minus" columns gives net corrections. "No. of rations" is gotten by multiplying "persons present" by number of days. Total rations is gotten by correcting number of rations by figure given in net corrections. The allowances for the extra issues are gotten from Army Regulations 1215.

Q. M. C. Form 232--Certificate of Supplies Transferred.
(See A. R. 665, 701, 1198, 1251.)

133. This form is filled out, in duplicate, when depot company moves and has Quartermaster's supplies in its possession. It is a certificate of the Company commander that the articles are comprised in the equipment of his company and will be reported by him to the Q. M. upon arrival at his destination. One given to Q. M. and one is retained.

Q. M. C. Form 501--Individual Personal Equipment Receipt.

134. When property is issued to one of the depot enlisted personnel for his use, he receipts for same on this blank. The receipts are kept in a loose leaf binder, one for each man. When the soldier turns in property he receives credit for same on the blank, and when he draws more articles they are charged against him in column headed "Changes."

Q. M. C. Form 509--Delinquency Record (Enlisted Man).

(See A. R. 280; Manual for Courts-Martial, 333-336.)

135. This is a loose leaf form for recording offenses of enlisted men, their kind and punishment.

Historical Record of Organization.
(See Compilation of General Orders, 84; A. R. 258, 281.)

136. This record contains information concerning original formation, changes in organization, location and other items of historical importance. It should be kept in duplicate and kept up to date at all times. Soon after the end of each calendar year a copy of so much of the record as relates to the past calendar year is sent direct to the A. G. A.

War Diary.
(See Field Service Regulations, 35.)

137. This record of military events will be kept by the depot if directed to do so by higher authority. Each day's record is verified by C. O. and forwarded daily to next higher commander. It would be advisable to keep this in duplicate so that a copy can be retained in the depot records.

138. The theory and practice of the military system of correspondence should also be studied in all phases except filing (See G. O. 23, W. D., 1912, or Compilation of General Orders, 1881-1915, par. 175-ff; also A. R., 1913, pars. 775 to 790.) All correspondence should be filed in accordance with the War Department Circular No. 1, March 24, 1914. War Department correspondence files (Dewey decimal system) should be used.

II. Depot Affairs.

139. The administration division is charged with:

(a) Preparing and filing all correspondence of a military or commercial nature except that pertaining to requisitions, which isfiled with the requisition in question; and that referring to property vouchers, which is filed with the property voucher in question.

(b) Preparing and filing of permanent records of the depot such as temperature readings in magazines, the war diary, etc.

(c) The rendition of all reports which may be called for by proper authority, data for which may, however, be secured from other divisions as required.

(d) Maintaining for general reference purposes a standard file of Army Regulations, general orders, pamphlets, ,etc., posted to date.

(e) The keeping of a "precedent file," in which is placed copies of correspondence, etc., containing decisions, opinions, instructions, and unusual cases

which may be valuable in determining the policy of the ordnance depot in similar cases. The original correspondence is filed in its regular place in the correspondence file. As part of this function it is charged with the dissemination of information of this kind within the depot and within the division when desirable.

(f) Keeping a "suspended file" for all correspondence, reports, etc., required to be submitted at stated intervals or held for action for any length of time pending receipt of information bearing on its preparation.

140. Officers and men connected with the depot administrative office, as well as those in the office work of the returns branch, should try to become acquainted with the methods and devices used in military offices to facilitate work.

141. For example, there should be kept, besides the regular files above, a small card file for muster and pay-roll data. On these cards, one of which is kept for each member of the company, there should be jotted down, as they occur, events requiring entries in the "remarks column" of either the pay or muster rolls. When the rolls are to be made up, data which should be placed opposite the name of any man can be simply copied off the cards, eliminating dependence on memory and keeping the data in order. The notations on the cards would apply, too, for necessary entries on the Service Records of the personnel.

142. As part of the "suspended" file--that part having to do with ordinary company administration--a Q. M. C. "Company Tickler" might well be used. This tickler carries the data necessary as a reminder to make out at the proper time the required routine reports, rolls, requisitions for issues of company quartermaster supplies, and so on. If the "Tickler" itself is not used, information of the sort it contains should be incorporated in the "suspended" file.

143. The office should have also a number of ordinary woodenback files for desk use. These may be kept either on top of the desk, or kept hung from the side. They are needed for certain kinds of papers, such as "live" requisitions, shipping lists, etc., which a particular clerk wishes to keep under his attention.

144. The office equipment ought to include the necessary desk baskets, for separating papers of different kinds, for keeping apart papers requiring the commanding officer's signature, etc.

145. A most useful device is a wall rack, easily made up, which is divided into small boxes or compartments. One of these boxes is assigned to each officer, to the senior noncom. of each division, etc.; and each is required, by standing order, to examine his box once or twice a day, or whenever about the main office. This device is used around all military offices to save messenger service.

146. The office equipment for a field depot should include the requisite stationery, forms, inkwells, etc. There should be on hand a full set of drawing instruments, and a photograph outfit. There should be a numbering machine, and adding machine, a mimeograph machine, standard typewriters and one long-carriage typewriter on which the finance papers may be made out.

147. Proper methods of handling correspondence and other papers should be studied. "Received" and "received Back" stamps should be provided for the use of the mail clerk in opening and stamping mail. The mail clerk should be well acquainted with the entire depot work--perhaps he should be the chief clerk in the administrative division-that he may be able to initial mail properly for the persons to whom it should go, and forward it by messenger, by placing in the proper boxes in the wall rack, etc.

148. Carbon copies of all outgoing correspondence and routine papers, reports, etc., ought always to be kept. Typed copies should be made of all communications going through the office, together with endorsements made thereon, of which a record for the correspondence file is desired. Officers and responsible clerks should acquaint themselves with the making of so-called "true copies"--typewritten or other copies, with "Signed" or Sgd." placed in front of the signature, and the statement or certificate of its being a true copy placed thereon.

149. Company order files should be carefully kept. Bulletins or standing orders as to conduct in shops and barracks, rules for fire prevention, etc., should be made out and posted, bulletin boards being provided wherever needed. Clerks should be taught to use informal memoranda whenever possible. For example, memoranda carrying explanations may be attached to papers sent by one clerk to another; instructions, etc., may be promulgated in simple memorandum form instead of by formal numbered order, and so on.

III. FINANCIAL AFFAIRS.

150. The administration division is charged with:

Preparation of the necessary papers and care for the funds received from the sales to officers and other transactions involving the receipt of moneys. (See War Department Form No. 322, Abstract of funds received; and O.D. Form 147) For regulations governing sales to officers see Army Regulations, paragraph 1520, 1521 and 1525 and introduction to Ordnance Department Pamphlet No. 1879. (O.O.G.O. No. 12, 1910, pp. 94-117, and O.P.R., Article IX, give the regulations governing these sales, the accounting for them and the method of disposal of the moneys received.)

In some cases with the making of disbursements for purchases, Usually these disbursements will be made from a central depot, where all financial accounting will be attended to.

The depot finance section, however, must in all cases prepare the necessary financial papers on which the central depot will pay. (See O.O.G.O. 12, 1910, pp.46 and 60-65, especially pars. 31 and 32 of Title II; and par. 63. See also O.P.R., Article VIII, O.D. Forms 219, 320, and W.D. Form 330.)

151. For the work of the Finance Clerk in the making of purchases and of sales see Appendices C. and E.

B. ACCOUNTS DIVISION.

152. The property or accounts division is charged with accounting for public property of all kinds, as distinguished from accounting for funds.

a. Layout and Locatetion of Office.

153. The accounts division of the depot office should be located in connection with the office of the Depot Commander and as close to the storehouses as possible. It is not believed advisable to locate the office in the storehouse unless steam heating is provided, on account of the danger of fire. Telephone connection with the storehouse office, and with all separate store buildings and magazines should be installed. Tables or desks and chairs should be provided for all clerks indicated in the chart showing organization of depot personnel. A rough form of table, with folding legs, and easily portable typewriters and adding machines, should be used.

154. Separate office should be provided for the officer in charge of the accounts office and the Depot Commander. All clerks attached to the property division should be in one office. Desks should be

arranged so as to facilitate the passage of the more numberousforms through the office, and a diagram should be made showing the routing or location of each of the more important forms and records which are used in the office.

155. Some points to be observed are as follows: Requisition clerks should have easy access to the balance of stores sheets, and these sheets should be readily available to the officer in charge at all times. The senior non-com. should have general charge of the office and should see all persons applying, so that his desk should be convenient to the office of the officer in charge of the office and to the entrances for messengers or other visitors. He should have a bell connection with the officer in charge of the office, and a telephone. Calculations should be made as to the sizes of the returns, balance of stores files, and files of other papers whose numbers are large and the necessary filing cabinets or shelves should be provided. All blank forms should be kept in one cabinet and a balance of stores sheet carried for each item, but no vouchers will be necessary except the expenditure statements to be made up at stated intervals from the balance of stores sheets.

b. Organization of Office personnel.

156. The chart furnished by the Ordnance Office gives an out line of the organization of the returns office personnel, but a chart must be prepared when each depot office is started, showing the exact routing of all papers which will come through and a detailed description of the duties of each clerk. An investigation should be made from time to time to determine the number of the different papers which are coming through and the amount of work which is being performed by each clerk.

157. Remarks about discipline in the storehouse apply with equal force to the office and responsibility for a mistake is usually easily found and should be followed in each case by appropriate punishment. Any clerk who cannot correct a propensity to make mistakes must necessarily be reduced. Efficiency records must be kept for the office force as for storehouse and other employees.

158. Close touch must be maintained between the office and storehouses, and if opportunity presents itself, the higher clerks should be allowed to work in the storehouses, and vice versa.

159. In making up diagrams showing routing of papers, etc., all copies should be routed. A messenger service must be arranged for and trips be tween the office and storehouse must be frequent.

C. Work of the Accounts Division.

160. The work of the Accounts Division is divided into that of (1) the Requisition Branch, (2) the Balance of Stores Branch, and (3) the Returns Branch.

1. Requisition Branch.

161. This branch of the accounts division is charged with taking the necessary account of both incoming and outgoing papers.

a. INCOMING PAPERS.

162. Requisition from organizations for ordnance stores and supplies (Form No. 386.)

163. Requisition of orders from competent authority, directing the equipment of individuals.

164. Orders for supplies from competent authority, directing the issue of certain articles. (For example, on Form 1515.)

The procedure and routing of papers in the filing of these three types of requisitions is indicated in Appendix A. Care must be exercised, in so routing, to conform to C.A.R. 56, 1917, as to invoicing to proper officer, etc.

165. Invoices for stores receivable. (Form A. G. O. 600.) The routing for these is indicated in Appe ndix D.

These invoices may be preceded by advance notice on Form 1514. See Paragraph 168 in this connection.

166. It is also charged with the preparation of correspondence in reference to incoming papers. Any such correspondence is to be filed with the requisition or voucher to which it refers.

167. Papers connected with the receipt and care of captured equipment and supplies, and equipment and supplies belonging to our own force and picked up on the battle field. All supplies received in this manner should be listed each day by a clerk, in the Requisition Branch, charged with this work. Special instructions will probably be issued as to the disposition to be made of enemy equipment and supplies; and usually this disposition will consist of invoicing it to designated points without taking up on the return.

b. OUTGOING PAPERS.

168. Requisitions for stock for all articles which are procurable at other ordnance establishments. Ordinarily Form 3602, with a letter of transmittal, will be used. Stock may come in to the depot, however, on order from higher authority and without the depot's request; and in such cases a copy of Form 1514 will usually be sent by such authority to the depot, as notice of the order.

The procedure and routing of papers in both cases given above is to be found in Appendix D.

169. Purchase orders for all articles which can be obtained in the vicinity in open market, and which are so urgently needed that any delay in their procurement would bring about serious results. See Appendix E. For the Financial Accounting connected herewith, see Paragraph 150.

170. Invoices for articles shipped from the depot to organizations or other ordnance establishments. (Form A. G. O., 600.) The routing of these is indicated in Appendix A.

171. It is also charged with the preparation of correspondence in regard to outgoing papers. Such correspondence is to be filed with the requisition or voucher to which it refers.

II. THE BALANCE OF STORES BRANCH.

a. The balance of stores records.

172. The balance of stores account should contain all information bearing on the stock of ordnance stores at the depot. The standard maximum, minimum and reserve stock to be kept on hand should be indicated on the proper sheet for each item which the depot handles. These figures shall be determined by reference to the directions from proper authority concerning the period for which the depot shall keep a stock on hand, and by determining the needs of the organizations which the depot is supplying during that period.

173. Specifically, the reserve is that quantity below which issue can be made only with special approval of higher authority. In the field this will usually mean the special approval of the Division Ordnance Officer. The reserve quantity of any item will be determined first, by the daily consumption by the division in an emergency, and, second, by the time required to obtain an additional supply on an emergency requisition from the supply point.

174. The minimum quantity, which is usually also the ordering number, is the amount required to make issues for the greatest time needed to obtain an additional supply of the item, allowing a fair margin for safety. Stated another way, it is the reserve plus an amount equal to the normal consumption of the division during the normal time required to requisition and obtain a replenishment of stock.

175. The maximum quantity is that figure above which it is not necessary or advisable usually to stock up. This figure is determined by local conditions, which might cause material to become unserviceable, storage space available and the amount of time required to obtain a shipment from another establishment. The bulk and weight of the item and the abundance of the supply and other conditions must be considered so as to make it unnecessary to requisition too frequently, as this overworks the force.

176. The difference between the maximum and minimum limits will, of course, differ with different items. In small stores where the supply is abundant it would be justifiable to have a difference between minimum and maximum equal to six months' supply, whereas your artillery ammunition, which is bulky and probably not too plentiful, may have to be replaced almost daily under normal conditions.

The balance of stores sheet.

177. The balance of stores sheets, should be made up one for each item on the standard depot balance of stores sheet form. Each book should contain the record of all articles under a particular division of ordnance property and should be constantly under the care of one clerk, who must naturally become familiar with the demand, supply and ordering of stores under his control.

178. Different colored sheets should be carried for serviceable and unserviceable stores. A red sheet should be provided for insertion over all stores where unobligated balance, or quantity available, has fallen below, the minimum.

179. Care should be taken to number each sheet and provide the necessary cross-indexes.

180. A second form should be provided and pasted on the inside cover of each balance of stores book. This form will contain the detailed instructions for making entries on the balance of stores sheet.

181. Instructions should be summarized to make the operations of the balance of stores books easier.

182. When quantity in the unobligated column becomes less than the minimum at the bottom of the sheet the requisition clerk must be notified to order an amount equal to the difference between the entry in the unobligated column and the maximum.

183. Care must be taken that the balance of stores accounts are proved at regular intervals.

General cautions in balance of stores work.

184. It is important that the amount indicated as on hand on the balance of stores sheets should agree with the actual stock in the storeroom. The best results will be attained if every time stores are issued and received and the bin tag changed the packer would note, on the packing list, the balance on hand as shown on the bin tag. Then when the posting is made to the balance of stores books the bin tag can be compared with that on the books. If they do not agree, the packer should be notified at once and if necessary an actual count should be made of the stores on hand in the storeroom. If this perpetual check system is not used, it will be advisable to take inventories of stores on hand (from time to time) in order to assure the correctness of the balance of stores books.

185. As mentioned above, the amount of each article ordered should be indicated on the balance of stores sheets and provision should be made for apportioning material on them as far ahead as possible in accordance with known demands. If this is done, sudden demands will not cause the stock of articles to be exhausted before a refill order can be received.

186. Finally, it shall be the duty of the chief balance of stores clerk to endeavor to ascertain through the officer in charge of the accounts division, as far ahead as possible, the needs of the organizations which this depot is supplying, especially extraordinary needs, which would make temporarily valueless the standard maximum and munimum stock limits.

b. Information papers.

187. The ammunition account shows the total

amount of the various kinds of ammunition at the depot, in the ammunition column, in the ammunition train, and, so far as possible, in the combat trains of the organizations which the depot is supplying.

188. The preparation of the report of the principal ordnance stores and supplies on hand at the depot. This report is for the information of the Chief of Ordnance, or the Chief Ordnance officer of the Army or expedition to which the depot is assigned. The report should give separate totals for (1) serviceable equipment, (2) unserviceable equipment repairable at the depot, and (3) amounts in prospect on invoice, on notice of shipment to depot, by b/l's, etc.

III. RETURNS BRANCH.

189. The principal duty of this branch is the preparation of the Depot Ordnance Return. (Form 18--Cover B, and Form 18--Inside Sheets.) This return is a property record--kept posted to date like an ordinary ledger. Accounts or records in this return, however, are not kept under the names of persons, as is done in commercial practice; instead, an account is kept for each article of property. In business, when property is transferred (i. e., sold), it goes to another person and becomes his property; the person, then, is of chief importance. When property is transferred by the depot, its ownership is not changed; it still is government property, having simply been taken out of the hands of one government agent and put into the hands of another government agent. Property accounting, then, is emphasized throughout in our depot accounting.

190. In the property ledger--the return--entries may be made only from authorized property papers--authorized vouchers, so-called. These vouchers are the papers representing issues, receipts, etc., of property, and on the basis of them, alone, property is "taken up" or "dropped" from the return.

191. The enlisted men assigned to the returns branch (see personnel chart) are charged both with the keeping of the return and the care of the property vouchers pertaining thereto. The following is a list of the principal vouchers, with reference to sources of information as to their use, etc. The instructions on the back of these voucher forms should be carefully studied. Army Regulations, etc., must be posted to date.

Transfers--Invoices and Receipts. (A. G. O., Form 600; O. P. R., Pars. 120, 121; A. R.,1524.)
Inventory and Inspection Report. (Form 1, 1. G.D., A. R., 710-726, and Article LXVII, especially Par. 903-914; O. P. R., Par. 170ff and 188.)
Report of Survey. (A. G. O., Form 196; A. R., 710-726; O. P. R., Par. 159-169.)
Abstract of Transfer. (O. D., Forms 274, 275; O. P. R., Par. 189.)
Abstract of Funds from Sales. (W. D., Form 322; O. O. G. O., 12/10, or-better for depot case--O. P. R., Article IX; and A. R. 1521.)
Abstract of Purchases. (O. D., Forms 219, 220; O. O. G. O. 12/10, Title V, Sect. 4, Par. 19; O. P. R., Article VII.)
Statement of Charges--against enlisted men. (A. G. O., Form 602; O. P. R., 168, 169; A. R. 724.)
Statement of Expenditures. (A. G. O., Form 601; O. P. R., 154-155.)
Requisition for Articles of Maintenance of Equipment "C". (A. G. O., Form 604; O. P. R., Par. 154-155.)
Due Certificate (A. G. O., Form 603; A. R. 681.)
Certificate of various kinds (not necessarily printed forms, e. g., see O. P. R., Pars. 145, 158, 167, 172, etc.)

192. For methods of executing the Return, together with a model page of the same, and for the manner of submitting vouchers, see O. P. R., Pars. 190, 203, 209, 212, 214, 215, 216, 223.

193. In reading these paragraphs care should be exercised to keep in mind the difference between a "depot" and a "field depot". The former refers to the permanent ordnance depots, such as those at Manila, P. I., Honolulu, San Antonio, and so on, while the latter refers to depots in the theatre of operations.

194. Vouchers to the field depot Return are numbered in a single series, irrespective of whether they represent issues or receipts.

195. The Register of Vouchers on 18--Cover B, differ slightly from that shown in the model in O. P. R., which gives the Register on the old 18--Cover. The "Received from Predecessor" and the "Transferred to Successor" are omitted on the former, due, of course, to the fact that the Return is not now completed and turned in in case of a complete transfer of accountability during the accounting period. Thus every return now runs through the full accounting period. At the present

time a simple notation, like "Oct. 23.-transferred to successor, Capt. J. Smith, 310th Infty.," is entered on one line of the Register immediately below the last voucher listed before the transfer; and on the next line the entry of vouchers is resumed, with the numbering going on in the same series.

196. The proper dropping of materials used in repairs presents a special problem. It might be dropped, as suggested in O. P. R. 189, on the Abstract of Transfers; but the expenditures in the depot will be so great as to lead to confusion if so handled. Besides, since the depot return does not distinguish between serviceable and unserviceable stores, transfers from one of these classes to the other cannot be simply made. Property turned in unserviceable under A. R. 681F, for example, would simply have serviceable property given in exchange for it, without any notation or record of the transaction getting on the return. The best way to take care of these expenditures for repairs, then, would be by making out Statements of Expenditures similar to those shown in Par. 150, O. P. R., (1909). These Statements would act as vouchers to the depot return.

197. It is also charged with the preparation of the follow-up letters which may be necessary to secure the accomplishment of invoices for use as receipts for the depot return.

When such receipts are not returned in reasonable time, a form letter is sent out as tracer, requesting that information be furnished as to whether stores have been received. When the officer to whom stores were invoices reports that they have not been received, the acting quartermaster should trace the shipment and report. It is also charged with the preparation of all correspondence with the auditing authorities in reference to the depot ordnance return.

198. If the return of quartermasters' property in the depot is also to be rendered, the returns branch of the accounts division is charged with its preparation. The method of preparation and rendition of this account is described in full in the Manual of the Quartermaster Corps, 1916, Paragraphs 2108-2128.

C. SUPPLIES DIVISION.

199. The supplies division of the ordnance depot is charged with the receipt, storage, and issue of all Government property which is handled by the

depot, whether ordnance, quartermaster, or other department property. These functions are performed by the storehouse branch. The supplies division also includes the repair branch, which is charged with making the necessary repairs to unserviceable property received at the Ordnance depot for the purpose of such repair.

1. STOREHOUSE BRANCH.

200. The storehouse branch of the supplies division functions through issuing storehouses, warehouses, receiving rooms, magazines, and oil houses. Issuing storehouses are buildings in which are kept broken packages of all articles required for routine issues. Warehouses are set aside for the storage of original packages of ordnance stores, the condition of which is plainly marked on their exteriors.

201. Warehouses, besides storing articles in bulk, store articles of large size which can not be conveniently stores elsewhere. Original packages should be transferred to issuing storehouses complete, unless they can be securely refastened for storage. In the latter case the condition shown on the exterior should be corrected, according to the amount remaining in the package.

Of course, if the depot has but one storehouse--and perhaps such will often be the situation--both original and broken packages will be kept there.

It is of vital importance that the customary markings of package goods be learned in order that those in charge of the storehouse may always know what a given package contains without opening.

a. Location and construction of storehouses.

202. Whether there be but one large storehouse in the ordnance depot, or whether there be a number of smaller ones, too much conscious, careful thought cannot be placed on the location and construction features.

203. If you go to a training camp or overseas, it may be necessary for you to lay out and supervise the building of your storehouse; so we will start with your arrival at camp.

204. The first information you will want will be as to the amount of stores and equipment you will be required to issue and store.

205. You should apply immediately to the Adjutant General of your division for information

as to the number of troops of the different arms which you will have to supply, and the amount of equipment with which they will arrive, or, if present, have already had issued to them.

206. You will then calculate roughly the amount of the different articles that you will need for the original equipping. If you get within 10 per cent, it should be low enough for figuring your storage space. Then take your Ordnance war plans, which will give the replacement stock of different items for a division for six months, and correct it to conform to the strength of your own division and check it up with the allowances for six months in the supply tables. Then get hold of the publications giving the weights, dimensions and contents of boxes in which stores issued by the different arsenals are packed (Forms 2241, 2388, etc., O. D.), and figure the weights and dimensions of the quantities of the principal stores which you will have to handle; and from this calculate the amount of floor space which must be assigned to each of the principal items; and then estimate the amount required for miscellaneous spare parts. You will probably not require space for storing original equipment for troops, but you should consult your Div. O. O. or Div. Adjt. General in regard to this. In calculating your floor space and heights to which you can pile, be sure to calculate the floor load, and consult the Quartermaster as to the permissible floor loads in your buildings.

207. Space should be allowed for receiving, moving and packing stores. While the definite amount needed must be based largely on experience, you can get a fair estimate by figuring a sufficient space in the packing room for all your packers and their helpers to work in.

208. The next step will be to make a study of the proper location of your buildings with regard to transportation facilities, both rail and highway, and a consultation with the Div. Engr. Officer in regard to the locating of sidings or spur for your storehouses or the assignment of space on an existing siding. Bear in mind that your storehouse should have as much track frontage as possible.

209. The construction plans of all storehouse will in all probability be similar, being those approved by the Ordnance Office and regularly erected by the Quartermaster. One feature of construction which should never be overlooked is the providing of a sufficient number

of doors. There should be doors at frequent intervals along each side of the building. Such a system will allow for the receiving and issuing of material with the minimum of moving within the storehouse. The ground in the immediate front of the doors should be dug away so that motor trucks may back up against the storehouse and have the level of their bodies even with the level of the floor of the storehouse. Freight platforms, car floor levels and the storehouse floor level should be the same, to allow loading and unloading to be carried on with a minimum of effort. The railroad spur should be banked up necessary, to bring car floors even with the platform.

210. To provide the maximum room, platforms should be provided along the entire building, and they should be so arranged that supplies may be trucked directly from the car to an autotruck loading platform. In fact, you can make your storehouse layout more compact if you build on both sides of the siding or spur.

b. Storing and storehouse layout.

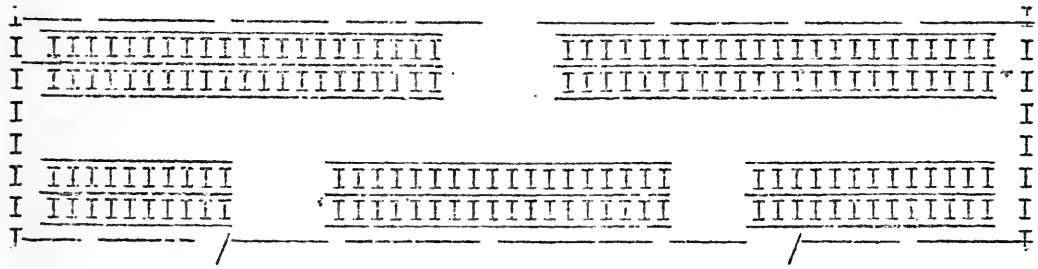
211. The following suggestions concerning the arrangement and layout of storehouses and the ordnance stores within them should be followed as closely as field conditions will permit. Whatever the arrangement of the storeroom may be, it is extremely desirable to have racks containing all articles required for personal equipment located near the issuing window. The individual then reports to this window to be equipped, and the equipping can be done expeditiously.

212. Similarly, in managing your stores, they should be located so that stores to be issued together will be in the same part of the storehouse, as mentioned before. Definite spaces of sufficient size should be set aside for receiving, moving and packing the stores.

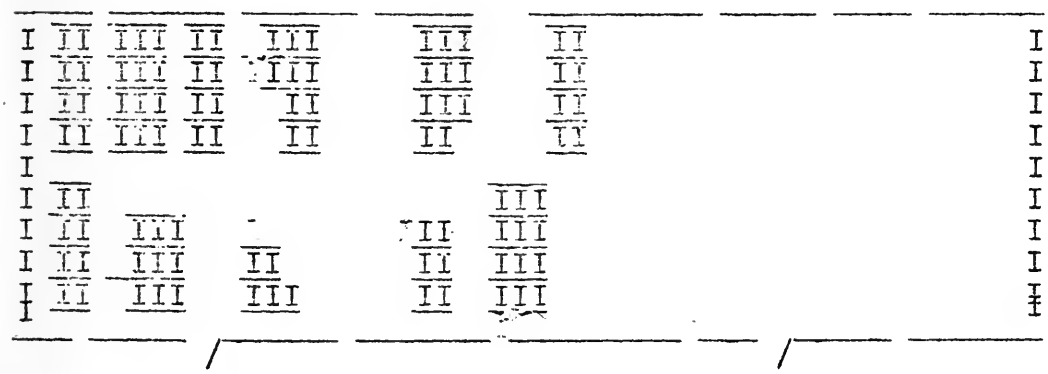
213. A system of main aisles and subaisles should be established that will allow the issuance of stores with the least amount of handling of materials not then to be issued. Care should be exercised that full advantage is taken of any window space in the creation of such aisles, and that proper space for trucking and packing is provided. Aisles should be so arranged that they will not be broken up by the posts which support the roof of the storehouse. These should be hidden by the bins or packages of stores.

214. Bins and package goods should be arranged

along sub-aisles so that light from the windows will fall down the length of these aisles. The following diagrams show the correct and incorrect methods of interior arrangement of the storeroom:



INTERIOR ARRANGEMENT OF STOREHOUSE
INCORRECT.



INTERIOR ARRANGEMENT OF STOREHOUSE
CORRECT.

215. In no case should the stores be arranged as in the diagram marked "Incorrect.". Dependence can not be put on the light that will filter over the tops of the piles of stores, even though an aisle of a foot or more be kept along the side of the storehouse. It should be noted that even if stores are arranged as in the diagram marked "Correct" a space should be left between the wall of the storehouse and the stores. Stores which are stacked immediately against the wall are subject to far greater changes in temperature than are stores in cases where a space is provided.

216. Another disadvantage of arranging stores as in diagram marked "Incorrect" is a distinct lack of flexibility. In the case of an addition to the

amount of adjacent piles of other articles. When the stores are placed as in the diagram marked "Correct," piles may temporarily be extended into the main aisle, even though the width of the aisle is for the time being decreased at that point. In most cases this decreased width will be found sufficient to permit the passage of hand trucks. Moreover, in the case of material, the quantity of which on hand is temporarily small, the "Correct" arrangement considerably increases the width of the main aisle. The additional space which is furnished in this way can generally be well utilized as packing space. In case a number of shipments are being gotten ready at one time, the larger ones can be assembled in the wider part of the aisle, and the small ones in the narrower. The shape of the main aisle is of little concern providing that space enough is left for trucks to pass.

217. In treating on storing, supplies should be divided into two classes--those stored in original packages and those stored loose in bins, etc. The first class covers practically all articles of standard equipment, such as canteens, small arms, haversacks, etc., and the second, spare parts and supplies such as nails, wire, rope, oil, etc. As a general thing in a field depot, original packages should be opened only when the stores are needed for supply so that odd amounts of equipment would be issued from only one box; but spare parts, etc., might be stored in bins.

218. In piling stores always see that one box of each item is readily available, and as a general rule where space permits only one item should be in each pile. Stores are usually piled in sections about 20 x 20 feet, with an open space around each section. (See Appendix F--"Stowing.") The height of each pile is usually dictated by the weight of each item.

219. In the proper rotation of the stock on hand, the "Correct" arrangement of the storeroom is of great value. When stock is arranged along the length of the storeroom there is a natural tendency to issue from the inner or main-aisle row of each double pile. It is practically impossible to get out a box on the wall side until the corresponding one on the main-aisle side has been removed. The result is that the wall row remains in storage for months while the aisle row is changed constantly. By carefully recording the time of arrival of stores, the oldest stores may be issued first, if the arrangement of the storeroom is "Correct." Boxes should be arranged so that the marking on their ends may be always observed. This will aid in the proper

rotation of stores.

220. Where time and facilities permit, bins should be constructed of standard size, with standard size removable and interchangeable subdivisions. This will greatly aid in the location of the article as well as in the proper arrangement of the storeroom.

221. The standard ordnance packing boxes can be used to great advantage as bins where it is impossible or undesirable to install permanent ones. Select from the stock of empty or partially empty boxes the size most commonly used. The covers of these boxes are made in two pieces tongued and grooved. The tongued half should be nailed in its usual position, and the grooved half should be tacked on the back of the box in order to prevent its loss. The boxes may now be built up in double rows, four high. If it is necessary to build up the piles higher than this, the lower two rows should be built of boxes deeper (in a horizontal direction) than the others. After the shallower boxes are placed above, a ledge 4 or 5 inches wide will be left for a foothold for a man reaching up into the upper boxes. In the case of a depot which is likely to be moved, it would be desirable to remove the tongue and grooving of the cover and replace this by a pair of hinges. By doing this, half of the cover can be nailed permanently in place, while the other half can be dropped while the boxes are used as bins, and raised and secured if the same boxes are to be used as containers for transportation. It is not necessary to add hasps, except in cases where it is advisable to lock articles up, as in the case of revolvers, pistols, etc.

222. A system should be devised whereby all perishable stores shall be inspected at certain stated intervals; and the record of the last inspections should be on each box. The proper cards or memoranda, kept in the chief storekeeper's personal "tickler" and moved forward after each inspection, would insure the matter being attended to.

223. A bin tag will be kept on each bin where an item is stored, and the name of the item should appear on a card on the front of each bin. Where stores are stored in original packages, it is well to fasten a stake to the floor in front of the pile, to carry the name and card and bin tag. Another simple method would be to nail bin tags boards to nearby posts or roof supports; and on these boards would be pockets for the tags for all articles in original packages close about.

224. Special attention must be paid to keep bin tags from being neglected, and a system should be

installed by which they will be checked up with the records in the office and with the actual stock. The former need would be taken care of by the scheme suggested in the notes on the Balance of Stores section; i. e., by requiring the packer to note on his packing or checking list, each time he makes an entry on the bin tag, the balance that tag shows. Then, when the packing or checking list goes back to the Balance of Stores that proper entries may be made there, the Balance of Stores Clerk can at the same time see that his "on hand" column checks with the tag balance. The latter need should be taken care of by a constant inventorying of articles, jumping about here and there in accordance with Inventory Schedule sheets, prepared so as to include all items and so that each item will have its turn.

225. Overhead space in the storeroom should be utilized wherever possible. This may be accomplished by the storing of heavy material on the first level and lighter on upper levels, in the case of the issuing storehouses; or by the use of platforms which practically make the storehouses two stories in height. In the latter case care should be taken that the platforms are high enough to enable a man to comfortably walk beneath them, as this will be found of great advantage in the handling of the stores on the first level.

226. In laying out your storehouse it is best to prepare charts showing the sections in which each item or group of items is stores. There should also be cards for each section showing the particular items in that section; and similar cards for each rack of bins. It would be well to have a floor plan of the storehouse showing the location of each section and a list of all articles in store showing section number, rack number, and, where necessary, bin number, for each article. This information can be carried on Balance of Stores account described herein.

227. Magazines are the places designated for the storage of all kinds of ammunition and explosives. They should be at least 100 yards away from other storehouses. For convenience in receiving and issuing ammunition of the same caliber and kind should be stored in the same or adjacent magazines. For detailed requirements for the storage of explosives see Ordnance Pamphlets No. 1720 "Regulations for the Transportation of Explosives;" No. 1872, "Seacoast Artillery Ammunition and Insturctions for its Preparation, Care and Use;"

No. 1888, "Regulations for the Care and Test of Smokeless Powder, Etc."

228. All oils, paints and other material of a highly combustible but not explosive nature should be stored apart from all other articles. The oil house should be at least 100 feet from the other storehouses. In general it will be found advantageous to locate the oil houses of the ordnance depot in the same vicinity as the oil houses of the Quartermaster Corps in order to secure advantage of their police and fire protection in this respect.

c. Organization and discipline of storehouse personnel.

229. The force in the storehouse will usually be divided into about fifteen teams, consisting of a packer and helper in each, and one or two gangs consisting of an assistant foreman or packer and four or five helpers. The packer teams will usually ship and receive all small shipments, and the larger gangs will take care of the large shipments---usually receipts and shipments made in original packages. This organization is not to be rigid. When a packer does not need a helper, he should be taken away from him and when any different sized force is needed, it can be made up by combination. In addition, one packer can be assigned to permanent duty in the spare part and supplies section. A special gang will probably be provided for ammunition work. In case there are not sufficient stores going through at any time [illegible] to keep all your men busy, they should immediately be put to work over hauling and cleaning equipment.

230. The preservation of discipline in a storehouse is extremely essential. Regulations and orders should be carefully studied before being issued, and if not perfectly possible of performance should be altered to meet this condition.

If a regulation is found to be not practicable, do not let it die a natural death, but repeal it.

231. A careful study of the amount of work performed each day by the force as a whole and by different individuals and sub-divisions should be made and any discrepancies explained by the persons concerned. To check up on the work go over the files of issue lists and invoices of incoming stores completed each day. Note the time each issue list or invoice was received by the man in charge of the packing and receiving and the time required for the job, also the total of all the

labor indicated by these records for the day, and compare with total labor available that day. All packers and checkers should be held rigidily responsible for their work. All mistakes can be traced from the initials on the invoice is issue list and the packers' slips, and the person responsible should be required to explain an error on a blank form which should go to the foreman and officer in charge for remarks and then to the Depot Commander for the necessary disciplinary measures.

232. An efficiency record should be kept for each man and all reports for or against be filed therewith. Records should be examined at frequent intervals, and if any man is not holding down his job he should be demoted except when in lowest grade, when some other action will be necessary. Remember that most men have been appointed without a thorough tryout and there should be no hesitancy to reduce them to the grade where they belong. The reduction may be made either through appeal to the Chief of Ordnance or through sentence of C. C. M. in aggravated cases.

233. Each man should have his work clearly designated, and there should be no division of responsibility. If a mistake is made in a shipment, both the packer and checker are responsible and the blame cannot be saddled on one or allowed to fall between them.

234. A set of storehouse regulations should be gotten out covering the following points and should be posted in conspicuous places around the storehouse and published to the depot personnel in the form of an order:

1. No smoking in storehouse.
2. No lanterns (except electric) in storehouse.
3. Inspection of insulation of electric wiring.
4. Fire drills, alarms, apparatus, etc.
5. Regulations in regard to storage of explosives and inflammable articles.
6. Regulations in regard to storing and packing stores.
7. If on foreign service, regulation for a conduct during an air attack.
8. Regulations in regard to admission to storehouse and exterior guards.

d. Receiving and issuing stores.

Receiving Stores.

235. A copy of each invoice on which stores are received will, as soon as received from the invoicing officer, be sent to the storehouse where it will be filed until such time as the stores arrive, when they will be checked with the invoice and put away. The packer and checker will each initial the invoice; the time the invoice was given the packer and the time that it was turned in by him will be noted on the invoice and the elapsed time should show the time required to receive and check the stores and put them away and the packer's initials on the invoice indicate that all work in connection with the receipt of this shipment, including entry on bin tags, has been completed by him; and he should thoroughly understand this. Large shipments, especially those that do not require to be unpacked before storage, will be received and stored by a roustabout gang of four or five or more laborers in charge of an assistant foreman or packer. All receipts of spare parts, cleaning supplies, etc., will be received and put away by the packer in the spare part and supplies section, assisted by as many men as may be necessary.

236. A thorough inspection of all items received with the exception of those coming from an arsenal in sealed packages, will be made by one of the inspectors, and any defects, or shortages, will be noted on the invoice for the information of the property division.

237. The invoice having been turned in by the packer and discrepancies noted in red ink, it is initialed by the storehouse foreman and forwarded to the property office.

(See Appendices D and E in this connection.)

238. Unserviceable equipment, or equipment belonging to our own forces which has been picked up on the battlefield, should be sent to the sorting room of the repairs branch, for inspection and proper handling there.

Issuing Stores.

239. The Issue List having been received in the storehouse office, is stamped and filed on the unfinished business file and as soon as a packer is available, it is turned over to him, the time he received it being noted on the Issue List. The packer gets out the stores, prepares his box, has

stores inspected and checked by the inspector, packs stores, closes box and seals, inserting packer's slip with his name and that of inspector on it. The packer then puts the proper markings on the box, as required by O. P. R., par. 121, and A. R. 1547. The depot requisition number, as put on the requisition by the requisition clerk, and shown on the packing list, should also be put on each box. This is standard practice at all arsenals and permanent depots, and facilitates checking and future reference. Usually "standing" stencils, that may be used over and over again, are prepared on a stenciling machine, to give the data required. A model stencil can be made, in the following form:

U. S. No. Wt. Lbs.
To
From Depot No. 6
Paris, France.
Inv'd.

1 2 3 4 5 6 7 8 9 0

240. The numbers can be filled in by using the second stencil shown. After the word "to" the name and address of the consignee are to be put in, individual stencils being cut for the purpose. Where shipments are made often to the same officer, stencils should be carefully handled and put after use into a rack boxed off to give a compartment for each letter of the alphabet.

241. The data just mentioned is usually stenciled on the top of the box. On one of the ends (preferably on both) is to be put the contents of the box, as required by par. 123, O. P. R. If the box contains but one or two kinds of articles, they should be stenciled on the end—e. g., "100 canteens model of 1910;" if numerous kinds of articles, the label "Miscellaneous Stores" "Saddler's Hardware," etc. The "shell and flame" is usually put on each end, near the edge.

242. Whenever a box which was previously marked is to be repacked, and when part of the contents are removed, the new number of articles should be stenciled on, after first removing the old with a scraper or drawing knife. When all of shipment is complete, and the checker has re-checked to see that weights, contents, etc., are properly marked, the packer transports the boxes to the proper loading platform.

243. Care must be observed by the packers to prevent breakage in shipment, and instructions should

be given and closely followed in shipping all standard articles. Regulations of the Interstate Commerce Commission in regard to shipments by rail must be closely adhered to, both in this country and overseas.

244. Before shipment, packer enters numbers and weights of each box on the invoice so that the contents of each box are shown by the invoice. This assists receiving officer in checking the shipment as well as furnishing necessary information for the bill of lading. Ordinarily the bills of lading are prepared by the Quartermaster, but it will probably be found more convenient to have one of the Depot Ordnance Officers appointed as Acting Quartermaster for this purpose and have all bills of lading prepared in the depot office. Special attention must be given to the packing of overseas shipments, and special regulations should be issued covering this matter to include requirements for data in regard to cubic displacement of boxes and values of stores received.

245. In case any of the stores called for on Issue List are not available, the present practice is to line out missing items in red or change numbers in red where less than the number of any item required is available. When an Issue List for shipment of stores not on hand is received, it is placed on a live file and this file is compared daily with the record of receipts to determine when the stores become available for issue. The decision as to whether a partial shipment shall be made or whether the entire shipment will be held until arrival of the missing items has already been determined by the requisition clerk and balance of stores clerk; and if the balance of stores system described herein is used, all stores on Issue List will be available for issue, as stores not available will not be entered on shipping list.

246. Issuing of spare parts and cleaning and preserving material will be done under direction of, or by, the packer in the spare parts division.

247. For additional notes on storehouse practice in issuing and receiving, see Appendices A and D.

e. Equipment for handling ordnance stores and supplies.

248. This subject is worthy of considerable study, but only a few general rules can be given as the local conditions must very largely determine the amount and types of equipment to be used.

As a general rule, the following articles will be essential in a depot:

12 two-wheel hand trucks.
6 four-wheel hand trucks with extra platforms.
2 piling machines or revolvators.

About 50 shot trucks of different size, depending upon the equipment of the artillery of the division.

249. In addition to this, overhead travelers are desirable when the permanency and strength of the buildings permit. Swinging cranes with differential blocks and shot tongs will be needed for loading large projectiles into cars and trucks. The use of slides will probably not be necessary because of the fact that all buildings will be one-story. As a general thing a division depot will not be large enough to warrant local power transportation for anything with the possible exception of ammunition, when a narrow gauge with some form of electric of gasoline tractor might be used. Here again local conditions will govern, and it is recommended that there be ascertained the relative costs of transportation by man power and by motor power, the average daily movement determined, and that it be considered whether motor transportation would enable some of the force to be dispensed with and then each individual problem be settled on its own merits. As a general rule, if costs are equal, the use of any mechanical aid is always advisable. The provision of an abundant supply of tools such as nail pullers, screw drivers, hammers, box hooks, etc., is essential. In addition each packer should have his own tool box. A stencil machine must be provided in the packing-room.

II. REPAIR BRANCH.

(a) Depot Repair Shops.

250. The shops of the repair branch should be as conveniently situated as possible to the office of the depot, in order to facilitate supervision of the work. It is frequently necessary for the depot commander to make decisions of importance as to the extent of repairs to be made. All shops should have appropriate shelves with compartments for the spare parts used in the repairing operations.

251. There should be in the shops some simple method of keeping track of materials used in repairs, that they may be properly dropped from the property return.

252. Due to the absolute lack of standardization in the conditions under which we are working, the ordinary method of getting out material under carefully worked out bills of material cannot be used. With one job different from the other no fixed, most economical issues of material can be made. The nearest approach to the bill of materials method would come through having the officer in charge of shops, or the senior noncom., estimate the supplies needed for each job; and this estimate could be incorporated on a material list sent through the balance of stores clerk, the material dropped, and the supplies transferred to the repair shops.

253. But this method has two serious drawbacks. First, estimates would be rough, at best, resulting in waste through overissue or under-issue, with the accompanying large amount of scrap; and, second, material would be dropped by the balance of stores clerk as issued when it was still in the depot. Suppose, under these conditions, a call should come in from the field for such materials and that the storehouse stock were exhausted. As far as the stores records show, there is no stock in the depot; yet, as a matter of fact, some of the materials, in quite large amount, might be in the shops still untouched, and could be diverted to the more urgent repairs in the field.

254. A better plan, eliminating the objections just given, would be as follows: Issue material for repairs, in bulk, to the shops, carrying such issues on the Balance of Stores records as apportioned or "Obligated," with a red ink entry or a special notation in the "Remarks" column to show the nature of the transaction. As material is used up, have the responsible noncom. in charge of the work enter it on a material slip, showing the job worked upon, etc. On these slips, properly O. K.'d by the officer or senior noncom. in charge of shops, the stores can be dropped from "On Hand." If "On Hand" and "Obligated" columns do not exactly agree when an issue of material is used up, correction entries on the stores record may be made; or slight additions or deductions could be made on job tickets, subject to the approval suggested above. This method would show always the true amount on hand in the depot, would eliminate wastage, and is simple to handle. Of course, material in the shops must be included in any checking of records by actual inventory.

255. The sorting room: Stores received from troops in an unserviceable condition should be brought to the sorting room and laid out in such a manner that small components or articles are grouped

together with a view to facilitating their later repair. It is rather difficult to give definite information as to the amount of room and equipment nedessary. There should be, however, one or two benches with compartments about 1 or 2 feet square built into the top, and there should be along one side of the room several large bins approximately 2 feet long and 3 feet deep. In sorting any particular class of stores the bins on the benches and the large bins on the floor can be temporarily tagged to facilitate such work. As a general proposition the sorting room should be kept as free from stores as possible; that is to say, as soon as a given set of unserviceable equipment is sorted the whole should be removed from the sorting room and sent to the repair shop.

256. Carpenter shop: The work which the depot carpenter will be called upon to do will consist in general of the following: (a) Making rough furniture for the depot use; (b) making boxes and crates for the shipment of stores from the depot; and (c) occasional repair work on artillery vehicles, such as battery wagons, store wagons, etc.

The requirements of the carpenter shop are a good light carpenter's bench, or benches, and a wide door opening in such a manner that vehicles and lumber may be brought in when necessary.

257. Small-arms repair shop: Work in this shop will consist mostly in replacing parts of rifles and pistols. For this purpose it is not necessary to have a large space, provided there be temporarily available, conveniently located, plenty of floor space whenever there are large shipments of rifles to be repaired. There should be two or more benches, unusually strong in construction about 2 feet wide and 3 feet long, and each of these should be equipped with a very heavy vise issued especially for the purpose. This vise should be provided with wooden jaws to use when working upon the stock of the rifle, or disassembling parts of the rifle from the stock. These benches should, if practiceable, be near a window in order to facilitate inspection of the bore of the rifle.

258. Machine-gun repair shop: The requirements of the machine-gun repair shop are almost identical with those of the small-arms repair shop. In fact, these two shops may be in the same room, if necessary. There is likely to be a large amount of instruction work pertaining to machine guns, and extra room for this must be provided.

259. Horse-equipment repair shop; The repair of horse equipment requires a minimum space of

approximately 10 by 15 feet for each saddler working in the shop. Each saddler should have a typical saddler's bench, which is usually about 6 or 8 feet long and 2 or 2½ feet deep. These benches are built somewhat higher than the average workbench, so that the top is about the level of a man's elbow. On the back of this bench the saddler usually desires a vertical board approximately a foot high, upon which he may keep his tools within easy reach. At each bench should also be provided a stitching horse, such as is regularly provided for this purpose by the Ordnance Department. One drawer should also be built with the bench. The ideal equipment of a saddle shop will also include a cutting bench, which is built rather solidly and about the height of an ordinary carpenter's bench, or slightly lower. For this bench one or more cutting boards must be provided. This cutting board should be made of the finest soft wood available, without knots or seams, should be 2 inches thick, 6 feet long, and, if possible, 18 inches to 2 feet wide. Around the sides below the top may be conveniently placed pegs on which may be hung cutting patterns, etc. There should also be at least one leather-sewing machine, which, if practicable, should be motor driven. This sewing machine should have a solid foundation that is at least equal in strength to a plank floor, and the space required will be approximately 10 square feet for the machine and 10 square feet for the work, with as much additional floor space as can be spared for piling large work, like aparejos and other articles of pack equipment.

260. Personal-equipment repair shop: It should be understood that certain parts of personal equipment will naturally be repaired by a saddler, This paragraph will therefore describe the repair of equipment which cannot be repaired in the saddlery or horse-equipment shop. Other repairs to personal equipment consist of two general types: (a) Darning, mending, or patching the cotton duck; or (b) inserting eyelets, snap fasteners, etc.

For this work each workman will require a small bench, rather lightly built, about 2½ by 4 feet. The darning, mending, and patching will be hand work as a rule, and is usually conveniently done with the assistance of a stitching horse, such as is used for the repair of leather goods. These are not always available nor are they necessary. The eyelets, grommets, and snap fasteners are inserted with the aid of small special tools furnished by the Ordnance Department.

261. Artillery repair shop: The work done in this shop will be similar in character to that done in the ordinary garage. There must be a hard, smooth floor, a large door which will permit the vehicles to be wheeled in and out, several heavily built machinists' benches, room for the necessary machine tools and for the considerable amount of riveting which will have to be done. Provision should be made for sufficient floor space to work on several 6-inch howitzer carriages at the same time, a minimum floor space of 160 square feet being essential. The equipment of the Field Artillery repair shops should include the following machines and accessories: A gasoline engine, complete with all parts necessary for its installation, and spare parts for its repair; a gasoline-generating outfit; a bench lathe; an engine lathe; a milling machine with the requisite milling cutters; a grinder; a shaper; a hand drill; a hack-saw machine; a welding outfit; an air compressor with the requisite air hammers; pulleys; leather belting; the necessary machine tools; hand tools; dies; taps, jigs; wrenches; mandrils; rivets; washers. A large amount of miscellaneous equipment should also be on hand, such as sandpaper, emery cloth, oil of various kinds, resin, etc.

262. Motor vehicle repair shop: This repair department requires no particular description, as the requirements are identical with those of a commercial garage. This shop may be conveniently conducted in connection with or adjacent to the artillery repair shop described in the preceding paragraph, as the character of the work is very similar.

263. Optical instrument repair shop; This shop should be as free from vibration as is practicable. It should be well lighted, and as dry as possible under the prevailing conditions. There should be several benches, such as are ordinarily seen in jewelers' repair shops.

264. The booklets of instruction which are necessary to properly repair all ordnance material are furnished by the Ordnance Department. A List of these may be found in Ordnance Pamphlet 1467, pp. 24-32. This pamphlet is a list of the publications of the Ordnance Department.

(b) Mobile Repair Shops.

265. The machine shop trucks and mobile repair shops are similar to the repair shops in the depot in regard to their functions. They consist of motor trucks which carry as many of the machine tools

and the accessories necessary for proper repair of equipment as can be provided in the limited space available. They are not intended to handle the larger or the more intricate repairs, but merely to keep the simpler repairs from coming back to the ordnance depot and blocking all work at that point.

266. These mobile repair shops are no longer connected with the depot. They compose a separate organization, as part of the divisional trains. (G. O. 109, 1917.)

D. INSPECTION DIVISION.

267. For general information concerning this division, see General Orders No. 11, War Department, 1916.

1. INSPECTION OF MATERIAL RECEIVED.

268. The principal inspection function of the field depot consists of the inspection of material received from contracts. Material which comes direct from arsenals does not have to be inspected, but all which is received from contractors must be properly inspected as to quantity and quality. Specifications should be lived up to in detail, or the attention of the lieutenant in command of the inspection division called to any difference. He will take the action on each case that it may require.

II. INSPECTION OFMATERIAL IN SERVICE.

269. The division ordnance officer may at any time ask the inspection division to delegate a man to proceed to a given organization and inspect any or all of the ordnance property on hand in that organization. The inspector should report to the commanding officer of the organization. This report should be made direct to the division ordnance officer.

III. INSTRUCTION.

270. The Instruction section of the inspection division has to deal almost entirely with instruction in regard to machine guns. This instruction, as now contemplated (see duties of Officer in charge of Machine Gun and Inspection Division), will be carried on mostly outside the depot, in schools back of the lines. The instruction in the machine-gun school should teach the soldiers enough about the mechanical handling of the guns to do away as far as possible with the troubles which are experienced with jams, malfunctions, breakages, and mechanical abuse. The

firing for practice in reducing jams should all be done from entrenchments or hasty cover, in order to get the men used to working with the guns under service conditions. No remedies which cannot be made by any intelligent member of the machine-gun company should be taught at the school. This is most important because fanciful remedies which cannot be understood by the soldier, or which involve altering the parts, will not encourage the man to think that he is master of his weapon. Part of the instruction should be spent with artificially produced stoppages. Tables should be made out giving a list of the symptoms, such as characteristic positions of the handle or gas lever when the gun stops. The probably cause of these symptoms and the remedial action to be taken for each type of jam should be explained in detail.

APPENDIX "A."

DISTRIBUTION OF SUPPLIES--1.

Procedure and Routing of Papers in Distribution of Supplies on Requisition.

271. The requisition comes in from the field, approved by line Commanders and Division Ordnance Officer and is received and stamped by receiving mail clerk.

272. It is then passed to the requisition desk where it is given a house number. It is there examined by an experienced officer or non-com. (usually chief requisition clerk) and if issue is urgent a red tag is attached. An assistant clerk then verifies the authority, examines the signatures approving the requisition, and makes any necessary changes in form.

273. The requisition then goes to the Balance of Stores desk, where apportionments are made and the stores available for issue are indicated. These apportionments should be made at once so that sudden demands will not cause the stock to be exhausted before a refill order can be received. The requisition is then returned to the requisition desk, where a clerk makes out a requisition for shortages, if any, and indicates, opposite each item on the requisition, action taken. The items which will be shipped in a second issue are so marked. A clerk then mails the Requisitioning Officer a notice of the receipt and disposition of his requisition, placing a duplicate of the notification in the dead file.

274. The requisition then goes forward to the invoice desk where a clerk prepares the necessary invoices and receipts for the items marked available. Eight copies will usually be sufficient, as the three copies which formerly went to the shipping Q. M. can be dispensed with where the officer in charge of storehouse acts as Q. M. If the issue is urgent, the date before which the shipment must be made is noted on the issue lists and the copies are sent to the storehouse at once by special messenger. If a second issue is to be made, the first papers are stamped "partial issue" and the second issue invoices and receipts are prepared and stamped "second issue." The requisition is then returned to the requisition desk, where it is placed in a live file until notification is received that all stores requisitioned for have been shipped, have been ordered from some other supply point, or

that certain items have been disapporved. The requisition is then placed in the dead file.

275. The two issue or packing lists (copies 7 and 8) of both first and second issues, if there be two issues, are then sent to the storehouse office while the other six copies of both issues go to a live file in the Balance of Stores Branch to await the copy which will be returned from the storehouse. The issue lists are stamped with the time received in the storehouse office and are then passed to a live file. Here they are held until a packer is available, when one copy is turned over to him, the time he receives it being noted on the issue lists. The two issue lists for the second issue are kept in the live file and compared daily with the receipts until stores are available for issue, when the routing outlined below for first issue papers is followed.

276. Based on the copy that is turned over to the packer, the issue is made from stock, bin tag corrected, and items checked. The inspector then re-checks and inspects the issues and the packer enters the U. S. numbers and weights of each box on the issue list. This information which is later incorporated in the shipping list, not only assists the receiving officer in checking, but furnishes necessary information for making out the Bills of Lading.

277. With the last step completed in the storeroom the issue list is returned to the storehouse office and is stamped with the time when it is received from the packer. The date the stores are ready for shipment is then entered and the issue list is passed to the clerk in charge of files, who removes copy 7 from the live file and enters on it data for the shipping list, which is to go to the consignee. Copy 8 is then sent to the Acting Q. M. (in our case the officer in charge of the storehouse), who prepared four copies of the B/L. Of these the original and one memo are receipted by carrier or his agent. The original is mailed by the Depot Q. M. to the receiving Q. M., while the receipted memo is mailed at the end of the day, together with the letter of transmittal of memoranda B/Ls, etc. (Q. M. C. No. 169) to the central paying or accounting Q. M.*

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* The officer in charge of storehouse will also prepare in duplicate, at the end of each month, a report of bills of lading, etc.(Q. M. C. No. 151),listing all bills of lading issued at the depot during the month. The original will be mailed in, within ten days after the end of the month, to the Q. M. G. The duplicate will be retained in storehouse records.

The shipping order signed by the Depot Q. M. is retained by the carrier or his agent, while a second memo B/L (usually stamped "property shipped") is placed in a permanent file, together with the issue list from which the bills of lading were prepared. The second memo. can very well be dispensed with, as the issue list retained in the storehouse office is sufficient record of stores shipped. If it is desired to retain a receipt from the carrier in the storehouse office, the carrier could receipt either on the retained memo. or on the issue list, if the memo. is to be dispensed with. In most cases this completes the storehouse's end of the transaction.

278. In rare instances, due to discrepancies between the Balance of Stores Books and Stock actually on hand, items listed on the issue list will be short*. Where such is the case the packer will line out the missing items in red ink, or change the numbers in red ink, where less than the number of any item required is available. When the issue list is returned to the storehouse office, the copy in the live file is removed and shortages noted thereon in red ink. The corrected copy is then sent to the Balance of Stores Branch where copies 1 to 6 are already on file. These are removed from the file and corrected to agree with the issue list and a notice is sent to the requisition clerk to order the stores which are short. At the same time the invoice clerk is notified to prepare the extra issue invoices and receipts for the shortages. As mentioned above, the situation discussed in the preceding sentences will rarely occur. If the balance of stores system as planned by the Ordnance Office is installed, all stores on the issue list will be available for issue, as stores not available will not be entered on the issue list.

279. Returning then to the Balance of Stores desk, we find a clerk entering the invoice date on all copies and the shipping data on copy 5. The Balance of Stores Books are then posted, invariably from the issue or packing list and all copies are sent to the Returns Branch to have the issuing officer's voucher number put on. Copies 1 to 6 are

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*See "General Cautions in Balance of Stores Work" under balance of stores branch in the accounts division for a method which can be employed to assure correctness of the stores books.

then sent to the property officer, while copy 7 is posted at once to both the original and retained returns. At the same time that the entries are made in the returns, the page numbers of the return, on which the entries are made, are posted opposite each item on the issue list.*

280. The procedure herein outlined requires posting to the returns before the accomplished receipts come back from the consignee. This is not only in accord with standard business practice, but is in compliance with regulations laid down by the Chief of Ordnance. Ordnance Property Regulations, 1917, par. 217, states "the numbering of the vouchers and the making of the entries authorized by them will be practically simultaneous transactions."

281. After posting is made to both returns, the issue list with the return page numbers opposite each item is placed in a live file in the returns branch. Here it is retained to await the return of the receipts from the consignee.

282. Returning to copies 1 to 6, we find them in the hands of the property officer. This individual is usually the officer in charge of the accounts division. He signs the two invoices and the copy which will go to the Chief of Ordnance. This signature is not only evidence that the transfer of stores is made with the permission of the issuing officer, but is also a medium through which accountability can pass from the issuing to the receiving officer.

283. The six copies then go to the mail clerk who mails the two receipts, the two invoices and the shipping list to the consignee in time to reach him before the stores arrive. The 6th copy is sent to the Chief of Ordnance. Of the copies which have been sent to the consignee, the two invoices and shipping list are retained by him, while the two receipts (after the shipment is checked in) are signed and returned to the depot. Here they are transferred to the returns branch, where the issue list is being held in a live file. This is removed and the return page numbers are posted therefrom to the two receipts. One of these is then filed with the issue list as a voucher to the Retained Return, while the other receipt is filed as a voucher to the Original Return, which will be forwarded at the end of the accounting period to the Chief of Ordnance.

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* This is in accordance with Ordnance Property Regulations of 1917, par. 213.

284. With this operation, the work involved in the distribution of supplies, on a requisition by railroad or motor truck, is completed. The variations in routing where issue is made direct to consignee or to individuals, at the depot, is explained in the foot-note to the chart.

APPENDIX "B."

DISTRIBUTION OF SUPPLIES--II.

Procedure and Routing of Papers, when Requisition is a Property Voucher.

285. The distribution of supplies on vouchers requesting the replacement of articles, follows closely the procedure in the case of ordinary requisitions. It differs only where the voucher characteristic of the requisition introduces new accounting problems.

286. An approved Report of Survey, for example, is a property paper, good for so much property. If one of these reports is turned in to the depot, with the request that the articles which it lists be replaced, and not all the items shown are issued, there must be some method of accounting for the deficit. Otherwise the accounts of the officer requesting the replacement would not be correct. In the case of the ordinary requisition this problem does not arise, for the requisition is not a property voucher; invoice and receipt forms are simply made out for the exact amount of property issued.

287. In the former case, then, Due Certificates are made out to keep straight the accountability. They are made out for those items which the Balance of Stores clerk says are not available for issue. Suppose, though, that keeping accounts straight is not the only problem---that the officer wishes the articles short sent out as soon as available, and that we are not to wait until he presents the Due Certificates which we originally gave him for the shortages. To see that such issues are made, Second Issue copies of Form 600 are made out for ordinary requisitions, as shown in Appendix A. But in the present case, involving the voucher requisition, the matter is best handled by the making out of two additional Due Certificates, exactly like the two sent to the requisitioning officer, if the articles short are urgently needed. In addition, the extra copies of Form 600, needed for storehouse use, shipping list, etc.--just as in the case of second issue as made for ordinary requisitions--would be made out. The additional Due Certificates would be held at the B. of S. desk, while two of the copies of Form 600 would go to the storehouse, for the storekeeper's live file, to be acted upon as soon as the articles come in. Then, when all or partial

issue of the articles originally short is made. Due Certificates 3 and 4, properly executed, are sent to the requisitioning officer for his signature--that they may become valid vouchers to the Depot Return. And, when copies 3 and 4 are sent back, the officer is requested to send with them copies 1 and 2, which were given to him originally to keep correct his accountability. Copies 1 and 2 are, of course, copies which were signed by the Depot Property Officer, and for his protection they must be returned.

If only part of the articles originally short are issued, new Due Certificates must be prepared for the rest. Then the procedure repeats itself, just as in the case of third or fourth issue transfers.

288. On all these vouchers requisitions--Surveys, Statements of Charges, Due Certificates, etc.--the depot takes credit for the articles shown in the proper column as issued. These vouchers are, in other words, credit vouchers to the Depot Return, for the amounts entered in the column for issues, the proper column for this, on each form, being shown in the table at the bottom of the accompanying chart.

289. No Due Certificates are required, if not all the items shown on a "Requisition for Articles of Maintenance of Equipment C" are issued. This form is really not a voucher at the time it comes into the depot; and credit is taken on it simply for the articles which are issued. The form is included here because its routing through the depot would be similar to that for true vouchers requesting replacement.

290. The chart is practically identical in other respects with that for ordinary requisitions--identical in storeroom and shipping procedure, Q. M. activities, etc.

APPENDIX "C."

DISTRIBUTION OF SUPPLIES--III.

Procedure and Routing of Papers--Sales at Field Depots.

291. The distribution of stores through making of sales makes up the third important phase of the depot distribution function. Though sales will be infrequent as compared to issues on requisitions or on vouchers requesting replacement, they are important nevertheless. They represent a distinct aspect of the distribution of supplies problem in that they involve financial operations, the handling and accounting for public funds--where the others do not.

292. Sales may be made only to persons and under the conditions authorized by statute of congress, or by army regulations and orders formulated within those statutes. Of all cases in which sales are authorized (see pages 3 and 4, Ordnance Pamphlet, 1869) only one is of importance in the field depot, under actual field conditions. This is sales to officers serving with troops; and this case only will be taken up here.

293. Assume that Lieut. Jones, 301st Infantry, N. A., wishes an automatic pistol, a pistol holster, and an officer's belt of a certain model. He is required, under the general practice of arsenals and depots in time of peace, to write to the Commanding Officer of the depot, requesting that he be permitted to purchase these articles; this written request being sent in whether Lieut. Jones calls in person or makes his request by mail. If a letter, it is received by the mail clerk, who, on noting its contents forwards it to the finance desk. It is around the finance desk and the finance clerk, charged with the execution of all necessary financial papers, that sales procedure hinges. This clerk scrutinizes the request, sees that he has authority to make the sale--that the officer is regularly serving with troops, etc.,--and proceeds to find out if he has on hand the articles asked for. He does this by sending the letter, or a memorandum copy of it, if it is not in proper form, to the Balance of Stores clerk. This clerk notes on the letter or memo. the items available and apportions or "obligates" accordingly on his records. This apportionment is especially necessary with articles of officers' equipment, as the depot will ordinarily have but few on hand,

and it must guard against setting aside the same article on more than one request. The annotated letter or memo. then goes back to the finance clerk.

294. The finance clerk now prepares on Form 147 the certificate required by law to show that the sale is made in accordance with law and regulation. On the single copy of this form which he makes out the clerk enters the items, with their prices. And since regulations provide that an officer may purchase articles only for his own use, and when in service, the clerk executes the certificate at the bottom of the form to read: "These articles are for my own use in the public service." The form then goes to the officer for signature and is returned by him with the funds to cover, as shown by the price total.

295. The mail clerk sends the funds and the signed certificate to the finance desk. Now that he has the funds, the finance clerk must see that the stores are sent out. As a sort of "tickler" pending notification that shipment has been made, he puts the signed copy of Form 147 on a "live" file, kept under his attention. He then removes the original letter of request kept on a live file until now, and sends it to the invoice clerk.

296. Now, to have the papers necessary for carrying the transaction through the depot routine--shipping, etc.,--we must have duplicate copies of the articles called for. If these copies are not to go outside the depot ordinary typewritten sheets might do. But in the case of the majority of issues additional copies of Form 600, besides those required by regulation for formal records are made out at one operation by the stenographer. For the sake of uniformity, then, if for no other reason, we may have the invoice clerk make out two copies of Form 600 for use in the depot. After making out these copies from the items checked on the officer's letter by the B. of S. clerk, the invoice clerk files the letter request in the requisition file, that all papers of this sort may be together.

297. The two copies of Form 600 are sent as issue or packing lists to the storehouse, where they are handled identically like shipments made on requisitions, as shown in Appendix A. The storehouse office copy, stamped to show shipment completed, goes to the B. of S. clerk that he may drop the articles from his "on hand" record and reduce the amount outstanding as obligated.

298. Meanwhile the finance-clerk is waiting for word that the shipment has been made. He gets

his notification of this from our same shipping copy, which the B. of S. clerk forwards to him. The finance clerk needs this copy no longer, it being only a notice of shipment to him; so he sends it at once to the returns branch, there to be filed with other shipping copies, like copy 7 in the filling or ordinary requisitions. Unlike these other shipping copies, however, this one is not posted to the Semiannual Return. The reason for this will appear later.

299. Now that he knows that the property for which he holds the funds has gone out to Lieutenant Jones, the finance clerk may go ahead with the execution of the necessary accounting papers. He posts from the officer's certificate to an "Abstract of Funds Received from Sales of Property," W. D. Form 322. This form shows the date of sale, to whom the articles were sold, the articles, and prices. The authority for the sale is put in the "Reference" column; and here might be inserted "A. R. 1520," or the number and source of a letter authorizing a special sale, etc. The Abstract of Sales is prepared monthly, in triplicate. Two copies are sent to the Chief of Ordnance, or, perhaps (if so ordered) to the chief ordnance accounting office in France.

300. A word of explanation should be given as to why two copies of the Abstract are sent to the Chief of Ordnance, when ordinarily but one is sent. Here a money settlement is included, involving certain procedure by officials of the Treasury Department. That department must have a copy of the Abstract that it may certify to the Property Division of the Ordnance Office that the funds for the sales shown thereon have been properly accounted for. Until this is done the Property Division cannot make the required entries, from its copy of the Abstract, to relieve the officer of property responsibility in connection with the articles sold.

301. The third copy of the Abstract is posted to both the Retained and Original returns. The Abstract, being an authorized voucher, authorized such posting; and so also with the shipping copy of Form 600 in the filling of ordinary requisitions (Appendix A), this copy being identical with the copies authorized as vouchers. In the case of sales neither the shipping copy nor the officer's certificate are authorized vouchers; therefore they, in themselves, do not authorize an entry on the return. The

certificates, one for each sale made, are so-called "subvouchers" or supporting papers to the Abstract for the month. And since, the Abstract has but a single voucher number, like any other voucher, ten belts sold to ten different officers during the month would be put into the return under one entry, with one voucher number. The third copy of the Abstract of Sales, with its subvouchers pinned to it, is filed in the retained voucher pile.

302. We now have left the disposition of the funds from the sale. Ordinarily these would be deposited at the end of the month in one lump, either by the finance clerk or by the Commanding Officer himself. Funds of this sort may be (1) put in a designated government depositary, so designated by the Secretary of the Treasury, or (2) turned over to a disbursing officer. The former are usually national banks or banks of similar type in foreign countries. For funds placed with it the depositary furnishes a receipt known as a "Certificate of Deposit," sending also a notification copy to the Treasury Department. The depositor, however, must give the information needed on this Certificate--by whom deposited, the amount, and on what account. The latter is an important item. It is needed that the proper appropriation may be credited for, clearly, the articles sold have not been used up in the service and so much of the appropriation as authorized them has, therefore, not been spent. For sales to officers the depositary should be told that the funds are placed on account of "Sales of Ordnance Stores." That is notice to the Treasury officials, seeing it on the Certificate of Deposit, sent them by the depositary, to credit the proper appropriation, in this case "O. S. & S." (Ord. Stores and Supplies). The copy of the Certificate given him as receipt the clerk or depositing officer files carefully away.

303. Or the funds may be disposed of in the second way suggested, i. e., by turning them over to a disbursing officer. This will be done often under field conditions, where no depositary is near. Disbursing officers are officers appointed by the heads of their bureaus or corps to have placed to their credit, and to disburse, public funds; beyond that we need not go here. The disbursing officer may give any kind of informal receipt, and this should be filed away like the Certificate of Deposit.

304. No matter how the deposit is made, the Chief of Ordnance (or central accounting office in France) must be notified. This is required that the appropriation records kept in the offices mentioned may be given credit, permitting the reallotment of the funds for further purposes. The notification should be sent at once, the Certificate of Deposit number, if any, being given if known at the time. A simple letter is all that is required--"There has been deposited by me this day the sum of $_____, with the_____Bank (or disbursing officer) on account of Sales of Ordnance Stores."

APPENDIX "D."

PROCUREMENT OF SUPPLIES --1.

Procedure and Routing of Papers in Procurement of Supplies on Requisition or Order for Supplies.

305. Based on information from higher authority as to the immediate and future need of the line for Ordnance and Ordnance Stores, or based on the requests of depot foremen for supplies and stock and on the minimum stock limits and reserve figures as shown in the balance of stores books, the requisition clerk prepares a requisition in triplicate on another depot or arsenal. Copies 1 and 2 are approved and signed by the Commanding Officer and are sent out by the mail clerk. Copy 1 goes to the depot or arsenal which is to supply the stores, while copy 2 is transmitted to the Chief of Ordnance. (The practice of forwarding a copy of the requisition to the Chief of Ordnance is in accord with Ordnance Property Regulations, 1917, par. 90.)

306. The third copy of the requisition is sent to balance of stores' desk, where a clerk posts the items requisitioned for to the "due depot" or "ordered", and the "balance unobligated" or "available" columns on the proper balance of stores' sheets. The requisition is then placed in a live file in the balance of stores' branch to await the storehouse foreman's report on the receipt of the stores.

307. The next step in the transaction is the receipt from the supplying depot or arsenal of a card notifying the requisitioning officer of the receipt and disposition of his requisition. This card goes to the balance of stores' desk where a clerk makes the necessary changes in the books, if certain items are not to be supplied. The card is then filed with the requisition in the live file.

308. Before the stores arrive, the depot receives two invoices, two receipts and a shipping list, from the supplying ordnance establishment. The invoices and receipts go to the live file in the balance of stores' desk to await the receipted shipping list, which will be turned in from the storehouse. The shipping list goes to a live file in the storehouse office to await the arrival of the stores. By having copies in two places, we have two men tickling the shipment, one in the accounts division and the other in the storehouse. When the stores arrive, the shipping list is removed from the live file in the storehouse office and

turned over to a packer[1] having first stamped on it the time at which it is given to him. This individual receives the stores, notes their condition and initials the slip. Discrepancies between the stores received and stores called for on the shipping list are noted on the list in red ink. A checker then checks the packer's work and initials the slip. Then, if the stores are not from another ordnance establishment, an inspector examines them and enters his remarks and initials on the slip. The shipping list then goes back to the storehouse office and the time that it is received from the receiving room is stamped on the slip. It is then initialed by the storehouse foreman, as a sign that the storehouse's end of the transaction is complete, and is transmitted to the balance of stores branch in the accounting division of the depot.

309. A clerk removes the requisition (with the notification card attached) and the two invoices and two receipts from the live file, and checks the shipping list against the requisition to see that all stores ordered have been received. The requisition and the notification card are then passed to the dead file. The two invoices and two receipts are then corrected to agree with actual receipts as shown by the shipping list.[2] The invoices are then turned over to another clerk to be posted to the balance of stores' books[3] while the two receipts and the shipping list go forward to the returns branch.

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1. The practice herein described is the one which is followed in most ordnance establishments to-day. It will perhaps be found advisable to alter the procedure and have the packer check against a list which gives items but not quantities. The latter practice has been found to be best in the commercial field and storehouse foreman would do well to install the system in depot work.
2. In many instances, it will be necessary to hold up the correction of the invoices and receipts until a survey can be held to determine the responsibility for loss or damage of stores shipped. (See O. P. R., par. 163, for procedure in case of loss or damage.)
3. See "General Cautions in Balance of Stores Work" under the balance of stores branch in the accounts division for a method which can be employed to assure correctness of balance of stores books.

310. Here the receiving officer's voucher number is entered on the copies and the two receipts are handed to the property officer, who receipts for the Commanding Officer and mails to the issuing depot or arsenal. The shipping list is then posted to both the original and the retained return, while the page numbers of the return to which the posting was made are entered opposite each item on the shipping list. The copy is then placed in a live file to await the two invoices still at the balance of stores' desk.

311. When the posting to the balance of stores' branch, where the voucher number already assigned is entered. The shipping list is taken from the live file and the return page numbers are posted therefrom to the vouchers. The shipping list and one of the invoices is then filed with the retained return, while the other invoice is filed with the original return.

312. With this operation, the work involved in the procurement of supplies on a requisition is completed. The variations in the procedure when stores are procured on an order for supplies are described in the note on the chart.

APPENDIX "E."

PROCUREMENT OF SUPPLIES THROUGH PURCHASE.

Procedure and Routing of Papers in Making of Purchases at Field Depots.

313. Under present plans, purchases made by the commanding officers of depots in the field will be only of a minor sort. They will include articles needed urgently, or which are not costly and can be procured in open market (i.e., without the usual bids) at a fair price.

314. Large purchases will be made at central points, at the main arsenal in the theatre of operations, etc. And, for field depot purchases, disbursements will be also made from central points.

315. Requests for supplies, from whatever source about the depot, should reach the Balance of Stores' Clerk before further action is taken on them. Some requests might possibly go direct to the requisition clerk but many--perhaps most--would originate with the B. of S. clerk himself, since he has information in his records as to supplies on hand. In order to have all demands on the requisition clerk come from a single responsible source, as well as to permit the B. of S. clerk to have a record of needs and recommendations for supplies, it is best to direct all requests as suggested.

316. The Balance of Stores clerk makes out, from the information at hand, a request for a purchase order and sends it to the requisition clerk, charged with all actual procurement of stores. This request may be on a special form, similar to that used in commercial practice, or merely in the form of a memorandum. The requisition clerk then makes out the required number of purchase order copies, usually four. Copy 4 goes to the receiving warehouse or receiving room, there to be checked with the purchased articles when they arrive. Copy 3 is sent to the Balance of Stores' desk that the articles purchased may be entered as ordered on "Due Depot," and made available for apportionment. Copy 3 is then sent to a live file and watched by both the requisition clerk and the Balance of Stores clerk, that the order may be hurried along if pressing need warrants, or if the supplier delays.

317. Of course, before the Purchase Order is made out, care must be exercised to take what advantage is possible, in the competition of the

immediate vicinity, to insure the Government getting the most favorable prices. Informal requests may be made on several dealers, by messenger; or some dealer who has been honest and fair in previous cases may be awarded the purchase--especially if prices are well established and the same generally.

318. Copies 1 and 2 of the P. O. are sent to the Commanding Officer for signature, that his necessary approval of the purchase, in final form, may be obtained. One of the signed copies, the original, the requisition clerk sends immediately to the merchant or firm furnishing the supplies. The remaining copy, No. 2, is sent to the finance clerk, who puts it on a live file until he shall have received notice of receipt of the supplies.

319. These supplies, when they reach the receiving room of the depot, are checked with copy 4 of the P. O., taken from the open or live file. Necessary notations as to conditions, shortages, etc., are made on this copy, which is then forwarded to the B. of S. clerk that he may take up the actual amount received as "On hand" and drop it from "Due Depot.". He (or the requisition clerk, if the latter keeps the file) can then remove the live file copy, No. 3, of the P. O., now no longer to be kept under attention, and send it to the depot's dead file of P. O.'s.

320. Copy 4, the corrected receiving room copy, goes farther on to the finance desk. It is notice to the finance clerk that the articles have come in, as noted, and that he may properly go ahead with the papers involved in the payment therefor. He first takes off his live file copy No. 2, which he must send out along with No. 4, corrects it to agree with, and pins it to, the latter. All the purchases for any one calendar month he enters on the Abstract of Purchases, the entries being made at the end of the month, that all articles of one sort may be brought together on the form, as required. He makes out a cash voucher for each purchase, attaching to this any bills which the supplier may have furnished. The original of the Abstract of Purchases goes, with the cash vouchers and copies 2 and 4 of each P. O., to the disbursing officer making payment. The disbursing officer completes the cash vouchers and disposes of them, as well as of the P. O.'s or bills attached, as provided in A. R., 634, etc.

The Abstract of Purchase he is required to forward to the Chief of Ordnance, that the officer purchasing the articles may be properly charged with them. The money settlement involved is effected through the disbursing officer's Account Current, on which the disbursements to cover the purchases would appear.

321. The second copy of the Abstract is posted to both the original and retained returns of the depot, and is filed with the retained vouchers.

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